Project Evaluation Report

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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.

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Improving Gender Attitudes,
Transition and Education Outcomes

GEC-T Zimbabwe

IGATE-T Baseline Report

Prepared for: World Vision UK
Prepared by: Limestone Analytics

GEC-T Baseline Report

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IGATE-T Baseline Acronyms List

Acronym	Meaning
	Campaign for Female Education
	Community Based Education
	Child Protection Committee
	Department for International Development
	District school inspector
	Early Grade Mathematics Assessment
	Early Grade Reading Assessment
	Evaluation officer
	Form 1 (level of secondary school)
	Form 2 (level of secondary school)
	Fund manager
	Focus group discussions
	Girls' education challenge
	Girls' education challenge - transition
	Gender Equality and Social Inclusion
	Household
	Head of household
	Improving Gender Attitudes, Transition, and Education Outcomes
	Key informant interview
	Monitoring, Evaluation, and Learning
	Ministry of Primary and Secondary Education
	Out of school
	Primary caregiver
	Provincial education director
	Secondary grade mathematics assessment
	Secondary grade reading assessment
	Small and medium enterprises
	Union for the Development of the Apostolic Church in Zimbabwe Africa
	World Vision United Kingdom

Executive Summary

Background - The Improving Gender Attitudes, Transition, and Education Outcomes (IGATE-T) project in rural Zimbabwe is part of the Department for International Development UK's Girls' Education Challenge, which aims to increase access to education and improve the quality of education opportunities for marginalized girls. Planning for this project began in May 2017, and the entire project is expected to be complete by September 2021. This project is designed to reach 53,797 marginalized girls by focusing on the project's four channels of impact identified by the project's theory of change. These channels include: whole school development, community learning initiatives, leadership clubs, and community champions networks, which together address barriers including limited teaching resources, limited community engagement, and traditional gender norms.

The evaluation of the program involves the collection and analysis of quantitative and qualitative data at baseline, midline, and endline evaluation stages in order to compare outcomes for a sample of beneficiaries and a control group. The mixed-methods approach will bring together a quantitative difference-in-difference analysis for learning and transition outcomes at midline and endline with qualitative observations from interviews, focus groups, and classroom visits. The analysis will work to identify the impact of the program on learning, transition and sustainability measures, as well as intermediate outcomes such as teaching quality, attendance, life skills, attitudes and perceptions.

At baseline, enumerators conducted more than 3,700 learner assessments with in-school and out-of-school (OOS) girls and boys, 9,300 surveys, 38 focus groups, 25 key informant interviews, and 148 classroom visits for observation across 74 intervention and control locations.

Learning outcomes - All learners in our sample completed standardized reading (EGRA) and mathematics (EGMA) assessments. Higher grade students also completed progressively more difficult SeGRA and SeGMA components. The following table summarizes the average girls' performance (out of 100%) on each assessment subtask by grade.

Assessment	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS	Average
EGRA 1-5	24.5%	31.%5	36.8%	43.5%	50.2%	53.1%	53.8%	36.7%	42.6%
SeGRA 1	-	13.0%	26.0%	30.8%	41.9%	45.8%	47.6%	36.3%	37.4%
SeGRA 2	-	-	-	9.1%	16.3%	15.8%	16.5%	-	14.1%
SeGRA 3	-	-	-	-	-	9.4%	10.5%	-	10.0%
EGMA 1-6	50.9%	56.6%	64.5%	70.2%	77.9%	75.9%	74.5%	64.9%	67.6%
SeGMA 1	-	6.5%	12.0%	27.5%	48.2%	44.2%	45.8%	19.8%	30.4%
SeGMA 2	-	-	-	1.8%	3.4%	6.1%	12.8%	-	6.0%
SeGMA 3	-	-	-	-	-	3.1%	3.2%	-	3.2%

Subgroup analysis identifies characteristics that correlate with lower (or higher) performance. The largest differences are found for girls who have a disability, an uneducated primary caregiver, or frequently-absent teachers. These groups tend to score 0.03 SD, 0.25 SD, and 0.11 SD *below* average in numeracy, respectively. Access to a bicycle is related to a 0.12 SD *higher* score in numeracy.

Transition outcomes - Transition is the measure of whether students are continuing through defined educational or vocational pathways. Baseline transition rates were 89% in our control sample and 84% in the treatment sample, a difference that can be attributed to the higher number of OOS girls found in treatment locations. Because our sampling approach involved targeting specific numbers of those in and

out of school, a backwards looking measure of past transition is not a reliable way of estimating transition rates at midline. However, our analysis of the samples and community benchmarking data does provide some insight about what expected transition rates might be, as well as how they change for different age groups.

Our analysis indicates that as girls get older, the proportion of girls enrolled at or above the expected grade for their age declines. Some qualitative evidence suggests that the most substantial changes to the education progression of females occur in the final years of primary school and during transition to secondary school due to factors like the inability to afford secondary school tuition, and lack of support from parents or community leaders. We also find some quantitative evidence that links negative transition outcomes to poverty and uneducated household heads, consistent with statements from stakeholders in the focus groups and key informant interviews.

Sustainability score - At baseline, the project scores 1.8 out of 4.0 on a sustainability scorecard, designed to measure of resources in place that lead to more sustainable impact. The score indicates that the sustainability level is between “latent” and “emerging”. The baseline data suggests that there were sustained effects leftover from the initial IGATE program, but that more work is needed during IGATE-T if sustained systemic change is to be achieved.

Gender considerations - The baseline data shows that in-school females, on average, outperform males at every grade level on both numeracy and literacy assessments. This is consistent with evidence from other sources that girls perform at or above the level of boys while they remain in school. Despite outperforming boys when in school, however, the learning outcomes showed that there is much room for improvement in scores across both genders.

Additionally, females are more likely than males to leave school. Most of this early departure from school takes place in late elementary school or during the transition to secondary school.This evidence is consistent with findings from our interviews and focus groups that suggest girls often face more challenges completing formal education than boys do because of differences in family obligations, safety, or health and sanitation concerns. These findings suggests that addressing barriers that prevent girls from remaining in school may provide the greatest opportunities for improvement.

Intermediate Outcomes - Using classroom observation data, we see that approximately 84% use textbooks and resources in their lessons, and find that the learner reports of this kind of activity roughly align. For most other indicators of teacher quality, student reports tend to yield more positive results than in-class observations. Measures of attendance are fairly robust to the source of data: teacher reports and attendance registers both report students in both intervention and control schools being present about 90% of the time. About 14% students reported missing at least 3 of the last 20 days of school.

In terms of leadership outcomes, the average girl in the sample received a score of 56 (out of 80) on the Youth Leadership Index, with nearly 60% of students reporting they want to be a community leader. However, only about half of girls are involved in the decisions made about their education.

By looking at households contributing to school fees, we do not find evidence of a dip in households contributing after the girl reaches secondary school. When these indicators were analysed in the context of the characteristics and barriers specific to the project, we find substantial overlap between the characteristics related to intermediate outcomes and the characteristics related to learning and transition outcomes. Moreover, regressions relating learning and transition outcomes to intermediate outcomes suggest significant relationships between learning/transition and indicators for life skills and attitudes.

All of these quantitative results have been related to the qualitative data collected at baseline to provide context and insight into the mechanisms that describe the relationships between indicators, outcomes, and characteristics.

Recommendations - The tables on the following page summarizes the implications of the main findings of this report.

Findings with Evaluation Implications

Issue	Implication for Evaluation
ors were unable to identify enough OOS girls in the original points	Limits the precision of analyses involving OOS girls. The OOS sample size at midline and endline will lik lower than the GEC requirement. Expanded OOS data collection is necessary.
ing methodology resulted in fewer boys than expected	Limits the precision of analyses involving males, including analyses of gender gaps. Expanding the sam methodology for boys at midline would be beneficial.
omplete overlap between intervention locations for IGATE and	It will not be possible to fully distinguish the impact of IGATE-T from the lagged impact of IGATE during and endline evaluation.
IGATE-T sample points were not observed in IGATE data	Limits the ability of our analysis to speak to the overall, combined impact of the IGATE and IGATE-T interventions.
ction was limited to the four districts without Camfed	The impact of the program identified during evaluation may not be fully-representative of the overall imp program across all regions

Findings with Program Design Implications

Finding	Implication for Project
umerators were unable to identify enough OOS girls in the original mpling points	It is not clear whether there is enough demand for CBE to justify the program in most sample locations Expansion of CBE target population may help.
s outperform boys on learning assessments, but underperform boys transition measures	Addressing barriers that discourage girls completing school are likely to have the biggest impact for reducing gender inequality.
ere is substantial room for improvement in certain learning measures	Although girls outperform boys on learning assessments, there is still ample room for improvement on most subtasks.
s are more likely than boys to try new activities, but underperform other measures of youth leadership that relate to learning	To the extent that interventions address leadership qualities that girls specifically struggle with, they ar likely to be more effective at reducing gender inequality.

1. Background to Project

1.1 Project Context

The Department for International Development (DFID) UK implemented the Girls' Education Challenge (GEC) to provide £355 from 2012 to 2017 to improve the quality of and access to education opportunities for marginalized girls across 37 projects in 18 countries. Funding was extended in 2016 (as GEC T) to continue support for marginalized populations targeted by the GEC initiative, and to help the projects transition into sustainable programs.

Improving Gender Attitudes, Transition and Education Outcomes (IGATE-T) project builds on the original GEC IGATE project that was implemented in rural Zimbabwe. It intends to improve opportunities for 53,797 marginalised girls by increasing education quality, family and community support for girls' education, and attitudes towards education. The program will be active in primary and secondary schools, and within communities. It hopes to increase learning in literacy, numeracy and financial literacy, attendance, and progression, including the likelihood that girls successfully transition from primary to secondary school. The program will also provide community-based life-skills and financial-literacy training to girls who have dropped out of school, in the hopes of improving their access to opportunities.

The IGATE-T project will be implemented across nine districts in four of the ten provinces of Zimbabwe: Matabeleland North, Matabeleland South, Midlands, and Masvingo. The nine districts represent some of the poorest areas of the country, with an average poverty rate of 80%. Within five of the nine districts, another GEC program, Camfed, is active in secondary schools, and the IGATE-T program focuses on interventions at only the primary school and community levels. In the other four districts, IGATE-T is also active within secondary schools. In total, IGATE-T will directly operate in 266 primary schools and 52 secondary schools. 178 of the primary schools and all of the secondary schools were part of the original GEC IGATE program, completed in 2017. The remaining 88 primary schools in the IGATE-T treatment are nearby or in the same communities as the other treatment schools and are likely to have received at least some exposure to the community-based interventions during the initial IGATE program. The IGATE-T project will also reach out-of-school (OOS) girls through community-based learning programs in these communities.

The three primary project outcomes identified by the GEC and IGATE-T for assessment include:

- **Learning:** the improvement in literacy and numeracy performance of in-school primary and secondary school girls. For OOS girls, the program will additionally target improvements in financial literacy.
- **Transition:** an increase in likelihood that girls in primary and secondary school stay in school, progressing from one grade to the next or to transition from being out of school into community based education or back into school. Of particular interest is the likelihood of marginalized girls successfully transitioning from primary to secondary school.
- **Sustainability:** the expectation that the gains made through the IGATE and IGATE-T programs are sustainable following the end of the project, due to fundamental shifts in social norms, practices, behaviors or attitudes in the project communities, and through the continued efforts and increased capacity of local stakeholders, and the Ministry of Primary and Secondary Education (MoPSE).

In addition to providing detailed analyses of these important outcomes, the evaluation of IGATE-T will also consider other measures of impact, including program implementation measures, attendance rates, school and teacher performance, outcomes for boys, and changes in attitudes at the individual, family and community level.

The IGATE-T project will take a holistic approach to achieving impact by introducing complementary interventions targeting change at the student, school, and community levels. To improve learning, IGATE-T will a) increase access to education for girls, b) deliver a whole-school development programme c) provide accelerated learning through CBE, and d) offer highly relevant life-skills and exposure to business and entrepreneurial skills. To increase transition rates, IGATE-T will: a) improve teaching and learning in target schools b) strengthen linkages between clusters of primary schools, secondary schools and local communities c) build aspirations, life-skills and vocational opportunities for in- and out-of-school girls. To develop sustainability, IGATE-T will deliver improvements in learning and transition by: a) increasing schools' and MoPSE capacity to manage and monitor effective learning, b) strengthening the linkages between and increasing engagement of existing successful community to constructively address negative behavioral practices toward girls' education.

The IGATE-T project is being implemented by a consortium of partner organizations including World Vision UK, World Vision International, CARE International, SNV, Open University, Union for the Development of the Apostolic Church in Zimbabwe Africa (UDACIZA), and Emthonjeni Women's Forum[1]. The external evaluation team is composed of Limestone Analytics and JIMAT Development Consultants. Limestone is a Canada-based development consulting firm led by economists from Queen's University. They advised the IGATE-T program during the development of the MEL framework, and as the Lead External Evaluator, they are responsible for the evaluation methodology, instrument development, enumerator training, data analysis, and baseline report. JIMAT, a Zimbabwe-based consulting firm, was responsible for leading a team of 80 enumerators and managing the administration of surveys and learning assessments in the field.

1.2 Project Theory of Change and Assumptions

There are many potential barriers to girls' education in Zimbabwe. Family and community attitudes typically prioritize male education over female education. Lack of individual ambition, self-confidence and agency, or adherence to parental pressure or social norms may prevent girls from prioritizing their own education or staying in school. Expectations involving household and school chores tends to put greater burden on females than their male siblings and classmates. Many students face long commutes from home to school, which take time away from household tasks and introduce safety concerns. Sanitary conditions at schools may also prevent girls from attending. Work opportunities, early marriage and motherhood may interfere with schooling. Teacher absenteeism and certain teaching methods may limit learning opportunities within schools. Stereotypes around gender may prohibit girls from fully participating in technical subjects in secondary school. A lack of resources may limit the ability of families to enrol their children in school.

The IGATE-T project's Theory of Change is summarized by the flow chart in Annex 14. This diagram identifies the four main channels that link the barriers identified by the project and the project's intermediate and final outcomes. These can be summarized as follows:

[1] In addition, World Bicycle Relief has granted bicycles and cash to support the program.

1. **Whole School Development:** Improving teaching quality and learning resources improve the teaching, learning, and leadership abilities within a school. This directly improves the project's first intermediate outcome, teaching quality, which ultimately improves marginalized girls' learning.

2. **Community Learning Initiative:** Low household income and low community engagement ultimately lead to limited access to post-primary options. Improving these barriers through community learning initiatives can lead to improvement in literacy, numeracy, financial literacy, entrepreneurship, and life skills. This will lead to improved outcomes in the three intermediate outcomes of attendance, life skills, and community engagement. Ultimately, this will lead to improved learning, transition, and sustainability outcomes.

3. **Leadership Clubs:** The consequences of low household income (i.e. low investment in education), along with the consequences of traditional gender norms (i.e. low agency, low class participation) impact the self confidence, agency, and decision making abilities of marginalized girls. By addressing these barriers, girls' agency will be improved to improve attendance, life skills, and community attitudes to ultimately improve learning, transition, and sustainability outcomes.

4. **Community Champions Network:** By addressing the consequences of traditional gender norms and religious beliefs (e.g. gender based violence), the Theory of Change suggests that the community can become more aware of policy and increase educational investment, while also spending more time supporting and protecting marginalized youth. This will lead to improved intermediate outcome measures of community attitudes and girls' life skills, and ultimately to improvements in sustainability outcomes.

By removing the barriers faced by marginalized groups outlined in these four channels, the interventions in Table 1.1 are expected to improve the behaviours and attitudes girls have towards learning and transition, encourage girls to have higher aspirations for their education and life choices, and improve the literacy and numeracy skills of marginalized groups. Note that other contextual factors may also pose barriers beyond the scope of the project's theory of change. For example, Zimbabwe has been experiencing a cash crisis which may force teachers and community members to spend more time getting to or waiting at banks to access cash (taking time away from their teaching or community group obligations). The country has also recently experienced a period of political regime change. While this has so far had minimal impact on the project or data collection, it is possible political instability in the future could create additional barriers to girls' education. For example, it is possible that a regime change could lead to changes in education policy such as new curriculums, or different school fees. Knowing school fees are a significant barrier for learners (as discussed later in the report), changes in tuition have the potential to make education more or less accessible if a new government chooses to increase or decrease education subsidies, respectively. In an extreme case, if political instability escalates into conflict, this could lead many learners to be psychologically stressed, leading them to perform poorly at school (at best), or physically unable to attend school due to conflict erupting within their communities (at worst). Although the political changes have not been particularly disruptive so far, political instability has the potential to impose significant barriers to girls education.

Note that the IGATE-T WSD approach focuses upon teaching quality as well as school level leadership. To distinguish from the leadership approach of girls clubs, school leadership is school governance and enabling environment for teaching and learning. Other elements of this intervention include the relationship between parents/caregivers and the school as well as strengthening the capacity of the School Development Committee on issues of supporting learning, as well as joining up school level child protection

committees with community level child protection committees - these elements which may be considered part of WSD in another context are captured more under output 4, community engagement.

Table 1.1: *Project Design and Intervention*

Intervention Types	Intervention Description	Intermediate Outcome Affected	Primary Outcome A Interffected
Community Engagement			
School Community Engagement	Continuous engagement at school community level to create consensus on issues affecting learning of literacy and numeracy, child protection and gender equity; Development of a network of stakeholders who proceed to take actions to address issues in their context and with their school community. The themes of these interventions focus on learning, protection and gender. Issues are GBV, including early marriage, and engagements around literacy and numeracy as basic life skills. These are informed by priorities identified through engagement with the community and through the baseline, however each intervention is context-specific.	Attitudes and Perceptions, Attendance	Sustainability
Broader Community Engagement	Targeted engagement with key custodians of religious and cultural social norms that affect girls learning and transition outcomes – particularly related to gender based violence (including early forced marriage) and child protection.		
Leadership Clubs			
In-School-Girls' Leadership Clubs	In-school leadership clubs, extracurricular club reaching 35-50 girls per school, conducting leadership activities including extra literacy and numeracy practice led by a school level trained mentor and guidance and counselling teacher. School leads also challenged to build awareness and opportunities for leadership practice in other core and extra curricular activities.	Life Skills, Attendance, Teaching Quality	Learning, Transition, Sustainability
Community Leadership Club	Community level clubs led by volunteer mentors reaching girls and boys outside of school times/days to increase exposure the leadership development and literacy and numeracy activities at village level.		
School Development			
Whole School Development	Codesign of teacher professional development materials addressing foundational literacy and numeracy (FLAN) gaps in learners in primary and secondary school (modular content released over 6+ school terms); Support to cluster and school level teacher professional development (TPD), collaboration and supportive supervision to adopt classroom activities that support FLAN; Foster school leadership support for TPD and to address learning lag/struggling learners at school level and in collaboration with communities/parents and teachers.	Teaching Quality, Attendance, Attitudes and Perceptions	Learning, Transition, Sustainability
Community Based Education			
Community Based Non-formal Education	Community based non-formal education targeting girls and boys aged 13-17 who are not enrolled in formal education; Led by community volunteer educators under the supervision of primary schools focusing upon applied literacy, numeracy, financial literacy and lifeskills in a non-formal community setting;	Attendance (to CBE), Attitudes and Perceptions, Teaching Quality	Learning, OOS participating in CBE

1.3 Target Beneficiary Groups and Beneficiary Numbers

Project's Contribution

The project is designing its interventions to have a direct impact on girls in rural communities who are either (i) enrolled in primary and secondary schools, or (ii) old enough to be enrolled in secondary school but currently out-of-school (OOS), having dropped out of school before completion. It is also expected that some of the interventions, such as engaging the community and MoPSE stakeholders to encourage girls' education, may impact outcomes at non-treatment schools in or nearby the communities of the treatment schools. Changes in social norms, education quality, gender expectations, and resources may additionally have impacts on younger and older girls, as well as boys and other family members in the same communities. Table 1.2 and Figure 1.1 identify the number of direct and indirect beneficiaries being reached by IGATE-T interventions.

Figure 1.1: *Project Beneficiaries by District*

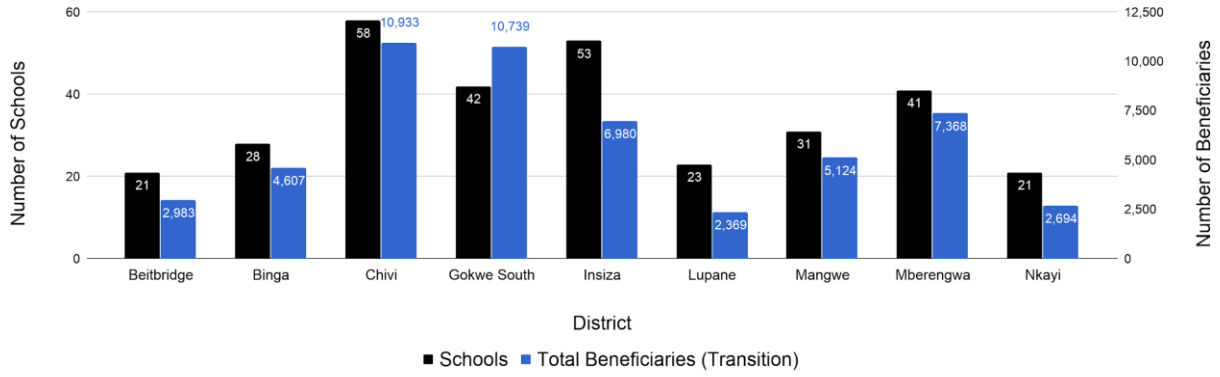


Table 1.2: *Direct and Indirect Beneficiaries*

		Learning		Transition	
District	**Schools**	**Direct**	**Indirect**	**Direct**	**Indirect**
Beitbridge	21	2,518	1,262	2,518	465
Binga	28	2,731	2,598	2,731	1,876
Chivi	58	6,134	6,382	6,134	4,799
Gokwe South	42	8,652	5,004	8,652	2,087
Insiza	53	4,535	3,584	4,535	2,445
Lupane	23	1,645	1,239	1,645	724
Mangwe	31	3,375	2,521	3,375	1,749
Mberengwa	41	5,535	3,331	5,535	1,833
Nkayi	21	2,223	1,166	2,223	471
Subtotal	-	37,348	27,087	37,348	16,449
Total	318	64,435		53,797	

The evaluation of IGATE-T will measure the impact of the project across three groups of potential beneficiaries. The project has defined two sub-populations of marginalised girls, plus one sub-population of marginalised boys that will be evaluated using a mixed-methods approach.

Marginalised group 1, in-school primary and secondary girls — This group includes marginalised girls in rural communities who are currently enrolled in primary or secondary school. The programme is particularly interested in reaching girls within this population who have very low numeracy and literacy skills, high rates of tardiness or absenteeism, live far away from school, face severe hunger, attend schools with poor infrastructure, are at risk of early marriage, or have the expectation to care for other family members. These girls face a high risk of dropping out of school prior to completing secondary school. This risk is particularly high for girls in upper primary school who are yet to complete a transition into secondary school. Additionally, girls in this marginalised group may not be developing literacy and numeracy skills to the extent of their capabilities. These girls may face less than ideal learning, home, or community environments. They may not develop agency, or the belief that their efforts to learn can lead to better life outcomes. They may also have obligations to work, complete a high share of household chores, or care for family members – which are all tasks that are likely preventing them from focusing on their studies. They may also face pressure from family members or community leaders who may be unsupportive of increased education for girls. This marginalised group will be evaluated for learning and transition. The sample for marginalised group 1 will include girls currently enrolled in grade 3 through to form 2.

Marginalised group 2, OOS girls of secondary age — Marginalised girls in rural communities that stopped attending formal schooling before completing secondary school. These girls tend to have low literacy, numeracy, and financial skills, which may prevent them from engaging in income generating activities. They also face a high risk of sexual violence and exploitation. They often migrate without having attained the necessary skills or agency. This marginalised group will be evaluated for financial literacy,

learning, and transition. The sample for marginalised group 2 will include girls who are currently OOS, but are old enough to be enrolled in secondary school.

Marginalised group 3, in-school boys — This group encompasses marginalised boys who attend the same schools as the marginalised in-school girls. They share many challenges with marginalised girls. The project will collect data on a comparatively small sample of boys to allow comparison between girls and boys, and determine how boys may be impacted by the programme. The sample of boys will be tracked for both learning and transition. The sample of subjects for marginalised group 3 will include boys enrolled in primary school who have female siblings included in the in-school sample.

External Evaluator's Contribution

The project has outlined their counting process in a document titled the "IGATE-T Target Areas and Beneficiary Count Process", which has been shared with the external evaluator. Given the project's familiarity with the schools and communities that are included in the project's Upon reviewing the numbers above along with this supplementary document, the external evaluator believes the project's estimated beneficiary counts to be accurate. The figures are retrieved from the MoPSE, which offers an Education Management Information System (EMIS) in managed by ZIMSTAT, to estimate the enrolment at schools in the project regions. These numbers are reviewed by district inspectors, suggesting that the counting methodology is reliable. Additional field work was done by the project, which found consistent counts compared to the numbers collected from EMIS, with the most notable exception coming from schools who do not submit their data to ZIMSTAT.

While the external evaluator has confidence in the accuracy of the beneficiary numbers provided, some of the assumptions about the indirect beneficiaries may be too strong. For example, it has been assumed that boys in the same class or clusters as girls in the IGATE-T regions will benefit from the project because of their proximity to girls who are direct beneficiaries. The channels facilitating these impacts are unclear at this time and should be clarified to give these estimates more validity. The same concern holds for indirect beneficiary counts around the OOS cohort. It is not clear how being in the same cluster as girls in the CBE program will impact girls and boys who do not attend the program, or whether the estimated indirect beneficiary numbers include all the OOS youth estimated to be in a particular area.

No data was collected during the baseline data collection process that would allow us to verify the accuracy of the beneficiary counts directly. This should be added to the midline evaluation data collection process. However, since the counts themselves are not highly suspect, this should not be a priority of the midline data collection efforts.

While the marginalized groups specified in the beneficiary targets are certainly relevant, it will also be important to consider the subgroups within these marginalized groups, notably the presence of disabilities. As discussed later in the report, the presence of disabilities within the sample is quite high for all marginalized groups.

2. Baseline Evaluation Approach and Methodology

Baseline quantitative and qualitative data was collected during the period of October to December 2017. This data provide an overview of attitudes, behavior and academic performance in both treatment and control locations following the completion of IGATE, but prior to the implementation of IGATE-T. This baseline report summarizes key observations from the baseline data, and uses this data to develop recommendations that may help inform project implementation and evaluation design.

At later stages, the baseline data will be combined with midline (expected September – November 2018) and endline (expected September – November 2020) data to measure changes in performance, attitudes and outcomes over time, and to provide a final assessment of the impact of the IGATE-T project.

This section provides an overview of the project's methodology and approach to evaluation. For a more exhaustive description, please refer to the logframe, the MEL Framework and External Evaluator's Inception Report, included as Annexes to this document.

2.1 Key Evaluation Questions & Role of the Baseline Evaluation

The IGATE program will use the interventions outlined in Section 1 of this report to address the education-related sources of marginalization of girls in Zimbabwe. To evaluate the impact of the program, the project's primary outcomes focus on learning, transition and sustainability measures. The future midline and endline assessments will determine the project's impact on these outcomes. Ultimately, the project seeks to answer four questions:

1. Has IGATE been designed and implemented successfully, and does it provide good value for money?
2. How does GEC Funding affect the learning and transition of marginalized girls through education stages in the IGATE program?
3. What is effective in facilitating the learning and transition of marginalized girls through education stages?
4. How sustainable are the activities funded by GEC? Is IGATE successful in leveraging additional interest and investment?

These research questions will be addressed through the use of primary and intermediate outcome measures described in the logframe. These measures focus on learning, transition, and sustainability. Quantitative data will be collected using surveys and learning assessments administered to adolescents, and surveys of their teachers and key family members. Qualitative data from focus group discussions and key informant interviews will provide additional insight to answer these questions.

The baseline analysis in the current report lays the groundwork for the future analysis, and develops insights that may guide implementation. Specifically, the analysis in this report focuses on providing the following:

1. Overview of individual, family and community characteristics of marginalized groups targeted by the program.

2. Comparison between the characteristics of the treatment and control groups, highlighting any significant differences that may limit the empirical methodology during the midline and endline analyses.

3. Discussion of issues with data collection that may limit the effectiveness of planned interventions or future analyses.

4. Identification of subgroups or specific outcomes with below average performance, potentially offering an opportunity for targeted program components to have a greater impact on outcomes.

5. Discussion of any other concerns or observations that may be useful for future implementation and evaluation efforts.

2.2 Outcomes and Intermediate Outcomes

The primary learning and transition outcomes can be summarized as follows:

- **Learning:** literacy and numeracy skills (and financial literacy for out of school girls) developed through education programs, typically at the primary and secondary school levels. The progression in these skills will be tracked over time.

- **Transition:** each of the following progression outcomes

    1) from one grade to the next in school

    2) from primary to secondary school

    3) from out-of-school status to community based education

    4) from community based education (described in Table 1.1) to employment or re-enrollment in school

Table 2.1 presents the main learning and transition outcomes evaluated for this project. These outcomes are supported by intermediate outcomes that focus on teacher quality, attendance, life skills, and attitudes around child protection and education, which are presented in Table 2.2.

Table 2.1: *Learning and Transition Outcomes for Measurement*

Primary Outcomes	Indicator	Level of Observation	Assessment	Rationale	Collection Frequency
Learning - Literacy	Number of marginalised girls supported by GEC with improved learning outcomes in literacy (primary, secondary & CBE)	School Household	Early Grade Reading Assessment (EGRA); Secondary Grade Reading Assessment (SeGRA)	The EGRA is a standard tool appropriate for collection of quantitative data to measure literacy. On a continuous basis the project will use a simplified STAR Assessment tool to measure changes in literacy.	Baseline Midline Endline
	Number of marginalised boys supported by GEC with improved learning outcomes in literacy (primary)	School	EGRA SeGRA	The EGRA is a standard tool appropriate for collection of quantitative data to measure literacy.	Baseline Midline Endline
Learning - Numeracy	Number of marginalised girls supported by GEC with improved learning outcomes in numeracy (primary, secondary & CBE)	School Household	Early Grade Mathematics Assessment (EGMA); Secondary Grade Mathematics Assessment (SeGMA)	The EGMA is a standard tool appropriate for collection of quantitative data to measure numeracy.	Baseline Midline Endline
	Number of marginalised girls supported by GEC with improved learning outcomes in numeracy (primary)	School	EGMA SeGMA	The EGMA is a standard tool appropriate for collection of quantitative data to measure numeracy.	Baseline Midline Endline
Learning – Financial Literacy	Number of learners enrolled in the community-based learning initiative with improved financial literacy (CBE)	Household Primary School	Financial Intelligence Assessment Tool	The approach will engage learners of NFE and collects both quantitative and qualitative data.	Baseline Midline Endline
Transition	Number of marginalised girls who have transitioned through key stages of education, training or employment (primary to lower secondary, lower secondary to upper secondary, vocational training, tertiary, CBE, employment or other)	School Household	School register School exam records	This approach use enrolment rates over time and also check successive progression in grades, and movement from one level (within formal and non-formal-CBE).	Annual Baseline Midline Endline

Table 2.2: *Intermediate Outcomes for Measurement*

Intermediate Outcomes	Indicator	Level of Observation	Assessment	Rationale	Collection Frequency
Teaching Quality	Percent of trained teachers in primary schools (disaggregated by gender) using improved classroom teaching practices to support learning	School CBE Centre	Teacher/head assessment interviews, classroom observation tool	Improved teaching practices increases the chances of meeting each child's learning needs. Classroom observations have been collected by by Enumerators	Ongoing[2] Baseline Midline Endline
	Learner's experiences on teaching practises (disaggregated by gender)	School CBE Centre	Learners interviews	Qualitative approaches will be employed (FGDs) which provides explanation on the interaction of students and new teaching methods.	Baseline Midline Endline
Attendance	Percent of primary and secondary school girls who missed three or more of the past 20 school days	School Clubs – community and school	School register, spot checks teacher, learner survey	School registers provide access to primary data on daily attendance of learners. This approach is triangulated by attendance spot checks which enable verification of school registers.	Regularly Baseline Midline Endline
	Learner's views about what influences their school attendance	School CBE Centre	FGDs and girls surveys	Focus Group Discussions will provide information on the girls views of what influences her attendance.	Baseline Midline Endline

[2] Monitoring of IGATE-T program implementation will provide administrative data on practice implementation on an ongoing basis.

	Average daily attendance rates for bicycle beneficiaries and non-beneficiaries	School	School registers, spot checks and teacher learner surveys	School registers provide access to primary data on daily attendance of learners. This approach is triangulated by attendance spot checks which enable verification of school registers.	Regularly Baseline Midline Endline
Attendance (continued)	Percent of girls enrolled in CBE who miss multiple meetings per month	CBE Centre	Attendance Register and Spot checks	School registers provide access to primary data on daily attendance of learners. This approach is triangulated by attendance spot checks which enable verification of school registers.	Regularly Baseline Midline Endline
	Percent of Grade 7 girls who enrol at the beginning of grade 7 and complete Grade 7 exams	Primary School	School Survey	The project wants to measure the proportion of girls who start and complete grade 7 which is the last year in primary. This will improve our understanding of when the decision is made to leave school for those who do not enrol in secondary school.	Baseline Midline Endline
Life Skills	Percent change in Youth Leadership Index	School CBE Centre	Girl Interviews assessing GEC Life Skills Index and Youth Leadership Index (YLI)	The approach designed to longitudinally measure changes in self-perceptions of leadership among youth, specifically those aged 10-17. The questions in the YLI ask youth about their self-perceived competencies in decision-making, problem solving, leadership and organizational skills, their sense of voice, and their ability to motivate others.	Baseline Midline Endline
	Adolescent girls demonstrating application of leadership competencies	School CBE Centre	Girl Interviews, FGDs, Girls club monitoring tool	Qualitative approaches will be employed (FGDs).	Regularly Baseline Midline Endline

	Percent of girls who report feeling empowered to make informed and relevant choices on their transition pathways (to secondary & post primary options)	School	Girl Interviews, FGDs	This approach will collect qualitative data with girls on how girls self-report on their empowerment through case studies and stories of change. This data will complement quantitative measures of agency, including the YLI.	Baseline Midline Endline
Attitudes & Perception	Percent of HHs contributing (school & community) to post primary education options for girls	Household	Household survey, School monitoring tool	Household interviews will enable us to collect contribution of girl's education. Biases are reduced through sampling.	Regularly Baseline Midline Endline
	Religious and traditional leaders' views on aspirations for girls education in their community	Household	FGDs and KII	The qualitative KII and FGDs will enable us to changes in religious and traditional leaders' views on education aspirations for girls in their community.	Baseline Midline Endline
	Percent of school dropouts re-enrolled into formal and non-formal education.	Community	School monitoring tool	This quantitative approach involves close monitoring and reporting from within the community. Community groups will have frequent internal access to girls and community members to get more information. This is administered by community groups as a log for their routine activities.	Regularly
	Community groups' practices on strengths and practices in addressing GBV and disproportionate workload for girl	Community	Community surveys including FGDs and KIIs	Qualitative approaches will be employed (FGDs, case studies and lessons learned).	Regularly Baseline Midline Endline

In an effort to ensure changes introduced by the project are sustainable even after the interventions are complete, the project has defined key sustainability outcomes, as outlined by Table 2.3. These outcomes will be measured to determine if learning and transition outcomes continue at the community, school, and system level. The GEC Sustainability Scorecard with three levels (community, school and system) and four stages of progress (latent, emerging, becoming established and established) will be used to assess the status and progress at each level. Measurement process will be done through focus group discussions by community stakeholders, education officials and school headmaster and teachers. Quantitative evidence will also be used to measure sustainability.

Table 2.3: *Sustainability Outcomes for Measurement*

Outcome	Indicator	Level of observation	Tool and mode of data collection	Rationale	Collection Frequency
Sustainability – Community	Percent of community and school child protection committees working together to address child protection issues and practises	Community	Community Monitoring Survey Key informant interview with head teachers and community leaders, and FGDs with community leadership clubs	This approach will allow collection of qualitative data on community support and actions in addressing child protection issues.	Baseline Midline Endline
	Frequency of community members and leaders advocating for investment and enabling environment for girls education	Community	FGDs	Discussions with communities on how they are actively supporting CBE and out of school based initiatives (Community Clubs).	Baseline Midline Endline
Sustainability – School	Percent of teachers and head teachers encouraging and prioritising child focused teaching methodologies	School Community	School FGDs and KIIs	Measuring the support provided to teachers makes an important difference in improving teaching and learning.	Baseline Midline Endline
	Percent of school heads promoting teacher peer learning to improve their teaching practise	School Community	School Survey	Peer support is important to allow teachers to support one another in teaching English and Maths especially at primary level.	Baseline Midline Endline
	Percent of target schools utilising resources on teacher professional development.	School	School Survey	There is need to measure adoption and utilisation of new teaching practises in order to see changes in learner outcome.	Baseline Midline Endline

Sustainability – System	Frequency of MoPSE officials (district, provincial and national) endorsing the integration of leadership club activities in school calendars	Community	KIIs with key stakeholders	This approach will allow collection of qualitative data through review of DSI records and plans, KIIs with DSI, KIIs with PED, KIIs with head teachers, Ministry approval letters.	Baseline Midline Endline
	Percent of target districts utilising resources on teacher professional development.	District	KIIs with key stakeholders	This approach will allow collection of quantitative information on the use of professional teaching resources.	Baseline Midline Endline

2.3 Evaluation Methodology

In four of the nine districts in which IGATE-T operates, the project targets at risk and marginalized girls in primary and secondary schools, as well as out of school (OOS) girls who are eligible for community based education (CBE). In its other five districts, IGATE-T focuses only on interventions at the primary school and community (including CBE) levels, as another GEC program, Camfed, is active in secondary schools in these districts. In these “Camfed districts”, the IGATE-T project was told that it would not be able to assess the learning and transition outcomes of its subjects once they entered secondary school. Because of this, the GEC instructed the IGATE-T project to conduct its evaluation in only the four districts without Camfed: Chivi, Mberengwa, Mangwe, and Insiza. The evaluation of the project focuses on conducting a detailed analysis within these four districts, and will use the findings from these districts to draw inferences about the overall impact of the project.

Due to time and budget constraints, data could only be collected from a subset of schools and communities within these four districts. The External Evaluator selected 74 primary-school catchment areas within these districts to serve as sampling locations for data collection. These included 37 intervention locations and 37 control locations. These locations were selected from a list of eligible sample points provided to the External Evaluator by the IGATE-T project. The list of potential treatment locations included the catchment areas of all 83 primary schools across the four non-Camfed districts that were randomly selected for treatment as part of the initial IGATE project, and which continue to receive treatment under IGATE-T (the set of IGATE and IGATE-T schools are the same). The list of potential control locations include the catchment areas of all primary schools across these four districts that were randomly assigned control status during the first IGATE project, and which are not located adjacent to or within clusters of treatment schools. The requirement that selected control schools be geographically separate from treatment schools was in response to some concerns raised during the evaluation of the first IGATE project that some program components spilled over from treatment schools to nearby control schools. To justify the time spent traveling to and collecting data in each location, the External Evaluator limited attention to locations in which the primary school had at least 50 students, in total.

The requirement that the IGATE-T evaluation focus on only four of the nine districts in which the project is active presents some problems for the evaluation, which we discuss in more detail in later sections. One of these issues is the limited number of control locations from which to choose. Across the four districts, there

were 37 eligible control schools in total. This meant that the External Evaluator had no flexibility in selection of control locations for the data collection. A potential concern with this is that a disproportionately large portion of these schools (17 of 37) were in just one district, Chivi. The random selection of the 37 treatment locations was restricted to choose the same number of schools in each district as there were control schools. This maintains the greatest degree of comparability across the intervention and control groups. Details regarding this randomized selection process are included in the MEL framework in Annex 5.

Figure 2.1: *Distribution of Sample Points Across Districts*

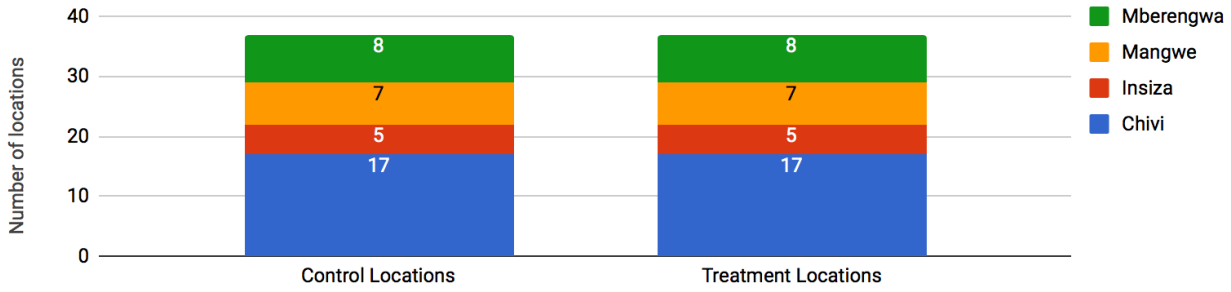


Table 2.4: *Distribution of Sample Points Across Districts*

	Chivi	Insiza	Mangwe	Mberengwa	Total
Control Locations	17	5	7	8	37
Treatment Locations	17	5	7	8	37

During the baseline data collection, teams of enumerators visited each of the 74 selected sample locations to conduct surveys of learners[3], households and teachers. Youth were also assessed through a series of learning assessments focusing on literacy and numeracy (and in the case of OOS girls, financial literacy). In a subset of locations, specialized enumerator teams also conducted qualitative assessments including focus group discussions and key informant interviews among different stakeholders.

Target sample sizes for the quantitative data collection were chosen in accordance to the GEC requirements. A target sample size of 3,182 in-school girls (grade 3 to form 2) at baseline is expected to produce a large-enough panel of data at midline to detect both a 0.25 SD change in average learning outcomes and a 10% change in transition probabilities. A target sample size of 1,110 OOS girls at baseline is expected to produce a large-enough panel of data at midline to detect a 0.25 SD change in average learning outcomes.

The MEL framework in Annex 5 provides a detailed description of how subjects were selected within each sample point location. The selection of in-school girls was conducted randomly through a process that targeted an average sample size per location of 43 girls, including 30 in grades 3-7 and 13 in form 1-2, with roughly the same number per grade. Larger schools were to have slightly higher sample sizes than target to make up for the fact that some schools do not have high enough enrolment to achieve the targets. Initially,

[3] Youth refers to beneficiaries aged 8 to 17 in this document.

OOS girls were chosen from previous year school enrolment lists before the sampling methodology was expanded to also identify OOS girls through household surveys and conversations with community leaders. Form 1 and Form 2 students were also selected from the the schools. The primary source for identifying form 1 and form 2 girls were the historical enrolment lists from the primary schools.When these were not available or were not sufficient, the enumerators went to the secondary schools directly to complete their samples.

In order to compare outcomes across genders, primary-school-enrolled male siblings of the in-school girls from the sample are also assessed for learning outcomes.

When the subjects from baseline can be found at midline and endline data collection, they will again be included in the sample, in order to develop a panel of data tracking individual level outcomes overtime. Attrition is a concern, and the sample size calculations account for participants dropping out of the sample. Additional girls will be added to the data collection efforts at midline to assure that the sample size remains large enough for endline analysis. At baseline, we collected data on in-school girls in grade 3 through form 2 (grade 9). These same girls, if they progress through school at the expected rate, will be in grade 4 through form 3 at midline, and grade 6 through form 5 at endline.

In addition to the surveys, assessments and qualitative data collection that will be replicated at midline and endline, the baseline data collection also collected one-time data intended to provide an overview of potential subgroups not identified during the other data collection efforts. This benchmarking data collection included conducting learning assessments for 120 in-school girls in Forms 3 and 4, and a short household survey for 240 households with girls aged 8 through 17. The households for this survey were identified through a random community-based sampling approach in order to provide a benchmark of the age distribution of in-school and out-of-school girls in the sample areas.

Table 2.5: *On-Target Grade Progression*

2017 (Baseline)	2018 (Midline)	2019	2020 (Endline)
Grade 3	Grade 4	Grade 5	Grade 6
Grade 4	Grade 5	Grade 6	Grade 7
Grade 5	Grade 6	Grade 7	Form 1
Grade 6	Grade 7	Form 1	Form 2
Grade 7	Form 1	Form 2	Form 3
Form 1	Form 2	Form 3	Form 4
Form 2	Form 3	Form 4	Form 5

The baseline analysis in this report focuses on providing summary statistics and identifying correlations which may inform upcoming implementation and data collection decisions. The midline and endline analyses will incorporate more sophisticated econometric techniques to identify the impact of the IGATE-T interventions. Much of the analysis will focus on individual level difference-in-differences analysis to compare changes in outcomes for those in treatment locations with changes in outcomes for those in the control locations. Subgroup analyses will consider project impact across different geographic areas, and across different socio-economic and demographic groups. Non-parametric and changes-in-changes analyses will look at how the program changes the distribution of outcomes, rather than simply the average values.

The quantitative analytical techniques that will be employed at later stages of the project are designed to identify causal impact. However, it may not be possible to attribute the identified impact to the IGATE-T funding specifically, rather than a combination of previous IGATE funding and current IGATE-T funding. This is because all schools in our treatment group previously received the IGATE program, while no school in control group did. Therefore, any difference in changes between the treatment and control groups could potentially be due to the delayed effects of the IGATE intervention. The recommendation section provides some suggestions regarding future data collection efforts which may help distinguish the driving forces behind any identified impact.

Throughout the analysis, qualitative data will complement the quantitative analysis. We will look to key informant interviews and focus group discussions to provide insights into patterns and results generated using the quantitative data. The qualitative assessments are less structured, which allow them to provide context to the quantitative component of this evaluation and to highlight barriers to girls' education that may not be apparent from survey responses alone. The qualitative assessments at midline and endline will provide opportunities for focus groups and key informants to discuss their perceptions of intervention effectiveness, which can give insight into theory of change and relationship between intermediate outcomes and outcomes.

At midline and endline, the evaluation team will work to assess the relationship between the intermediate outcomes and outcomes. A quantitative analysis will be used to determine the correlation between the IOs and outcomes, as well as joint correlation with other observable characteristics. However, the quantitative evaluation design is not sufficient for determining whether there is a causal relationship between IOs and outcomes, or the extent to which the specific mechanisms proposed by the theory of change are responsible for any observed correlation. To gain more insight into the details regarding the relationships between the IOs and outcomes, the team will rely on qualitative evidence from focus group discussions and key informant interviews, as well as observations from the evaluation team during site visits. It will be particularly important at the midline and endline evaluation points to ensure the assessments of OOS girls are designed to provide sufficient details about the conditions that led learners to drop out of formal education. Steps should also be taken to ensure the assessments collect details about the interaction learners had with the original IGATE project.

The external evaluation team is led by experts in the evaluation of gender differences in academic performance and the incorporation of gender into the evaluation of international development projects. Both qualitative and quantitative data will provide insights into the gender-specific barriers to education in the context of rural Zimbabwe, and will allow us to assess how these barriers are affected by the project. By focusing on both in-school and OOS girls, the project will gain insights into the reasons that girls leave school, and potential for re-engagement. Sex, age and disability data will be collected at all stages of the project. The sample size of in-school girls is large enough to conduct subgroup-specific analyses of learning outcomes while maintaining reasonable statistical power.

2.4 Baseline Data Collection Process

This section outlines the different stages of the data collection process to provide details on collection of both qualitative and quantitative data. The following timeline summarizes the key activities of the External Evaluator during the data collection process:

Table 2.6: *Data Collection Timeline*

Date	Activity
Sept 11, 2017	Limestone Analytics joins the project at the Lead External Evaluator.
Sept 11-Oct 11	Develop a sampling methodology. Review and edit the project MEL. Development of quantitative survey and learning assessment. Development of instruments for Key Informant Interviews and Focus Group Discussions. Development, piloting, and calibration of data collection tools and databases.
Sept 25-Oct 1	Lead formal training of local consultant and enumerator team in Zimbabwe.
Oct 1-16	Additional training of enumerator teams on data collection protocols. Site visits during mobilization and data collection.
Oct 12-Dec 8	Monitor data as it is collected.
Dec 8-Jan 10	Data processing and cleaning.
Jan 10-Feb 20	Analysis and writing of baseline report.
Feb 20, 2018	Submission of the first draft of the Baseline Report

During these same periods, JIMAT, the Local Consultant, was responsible for the collection of data using teams of enumerators on the ground. Prior to the start of data collection, they recruited enumerators and planned the logistical aspects of the data collection. During data collection, they led and monitored teams of enumerators in the field, and ensured that the data was uploaded to the project's servers. JIMAT also provided regular updates to the External Evaluator summarizing the data collection efforts throughout the process.

Pre data collection - Prior to the beginning of data collection, the External Evaluator was responsible for developing a sampling methodology that met the GEC requirements while adhering to financial, time, and resource constraints of the implementing organizations. Simultaneously, the External Evaluator adapted the GEC required surveys and assessment tools for the context of the IGATE-T project in Zimbabwe. This involved developing new EGRA, EGMA, SeGRA, and SeGMA instruments. Given the timing of the IGATE-T baseline assessment at the early stages of the GEC T initiative, these were some of the earliest SeGRA and SeGMA instruments developed and tested. These instruments were implemented in the Tangerine software platform for administering surveys and assessments on tablets in the field.

Piloting and calibration of the instruments took place in September 2017, several weeks before the instruments were used for data collection. The full results of the piloting/ calibration process are described in Annex 9. In light of these results, the financial literacy assessment was made shorter to account for time constraints in the field. Additional changes to the coding of all learning assessments in Tangerine were made to correct errors and skip logic rules so the assessments aligned with the rules approved by the Fund Manager. Note that during this time, only the learning assessments were tested in the field. The qualitative and other quantitative assessments were only tested internally and with the enumerator.

Enumerators were recruited by the Local Consultant, who assured that the enumerator teams were led by experienced personnel, and who handled the planning and logistics of the data collection efforts in the field.

The External Evaluator organized and led a week-long training of enumerators in the week prior to the beginning of data collection. Together with Local Consultant, Care International, and World Vision International, the enumerators and supervisors were trained to understand how to administer the GEC assessments. They were also provided training on the quantitative and qualitative data collection protocols, which included information regarding proper selection of learners, teachers, and households for each of the different assessments, the Tangerine platform and other tools required for conducting the assessments, and how to handle the completed assessments to ensure that data quality was maintained. Enumerators that were to be responsible for conducting qualitative interviews were provided with additional training on how to conduct these assessments. This training was administered by an expert on qualitative data analysis and the local consultant.

The project team provided some informal training on how to deal with ethical concerns and child safety during the data collection process. Enumerators were informed to report any concerns about child protection issues should they come up during the data collection process. More formal methods could be considered for the midline process.

Data collection - Data collection for both quantitative and qualitative assessments began October 12, 2017 in all districts and was completed by all enumerators in all districts as of December 3, 2017. The data was administered in the field on tablets using the Tangerine platform. Data was collected by team of enumerators managed by the Local Consultant, and was monitored in real time by the External Evaluator.

The selection of girls for inclusion in the In-School learning and transition sample were based on class lists from the 74 primary schools whose catchment areas were selected to serve as sampling locations. Using the sampling methodology presented in the sampling protocols (included as Annex 12), the enumerators randomly selected six current girl students in each grade, 3 through 7, to for inclusion in sample of in-school primary students. The sampling guidelines provides instructions for enumerators in the event that there are fewer than six students in any given grade, or fewer than 30 students in grades 3 through 7 in a school. The process assured a sample of at least 30 girls per primary school, on average.[4]

The enumerators additionally used lists of students who recently complete primary school in each location to identify girls who live in the catchment area and who may have been enrolled in form 1 or 2. Cross referencing these with secondary school data determined the set of local girls eligible for the secondary school sample. On average across each catchment area sample location, the enumerators were expected to assess 13 girls between Form 1 and Form 2 in accordance with the sampling guidelines.

Finding OOS girls for the out-of-school learning sample proved more difficult than originally expected. The initial MEL sampling approach required that enumerators identify OOS girls in a similar way as in-school secondary school girls, by using past primary school enrolment records to identify and sample an average of 15 OOS girls per catchment area. However, during the first week of data collection, it became clear to the evaluation team that the average number of OOS girls in each location was falling far below the 15 girl target. To deal with this issue, the IGATE-T project and the External Evaluator discussed options with the GEC and determined that a change to the sampling methodology was warranted. For the remainder of the

[4] Note that this sample size strategy implies that the sample will not perfectly imitate the grade distribution found in the broader population.

data collection process, enumerators relied on household surveys and conversations with school and community leaders, as well as past school records, to identify OOS girls in the community. This immediately done in all four districts. However, even in cases where the enumerators were confident that this approach allowed them to identify all local OOS girls eligible for CBE, the average OOS sample sizes still came up below the target. We discuss the implications of this further in Section 2.5.

There was no target for the sampling of in-school boys. Rather, the MEL required that the enumerators sample any boy enrolled in primary school who has a sister who was already being sampled by the program. The MEL framework estimated that a total of 533 boys would be included in the data collection using such a methodology. However, achieving a sample of this size was not a requirement placed on the program by the GEC.

Specialist enumerators led the qualitative data collection during this same period, conducting Key Informant Interviews (KIIs) and and leading Focus Group Discussions (FGDs) with community members (all held in English). The FGDs ask groups of parents, teachers, community leaders, in school boys and girls and out of school girls questions about the specific challenges faced by both youth and community members in the area. In total, 38 of these were completed: 9 in Chivi, 9 in Insiza, 15 in Mangwe, and 5 in Mberengwa. 25 Key Informant Interviews were completed: 6 in Chivi, 8 in Insiza, 7 in Mangwe, and 4 in Mberengwa. These involve interviews with government officials, religious leaders, boys, girls, teachers, and school headmasters. These interviews address questions about barriers and challenges faced by students in the region, as well as attitudes these community members have towards these issues. The FGDs were all done in the participants' native language, as well as most KIIs unless the interviewee was comfortable responding in English. These discussions were all recorded on an audio recorder and later transcribed and translated into English into a digital record by the local enumerators. Note that although the selection protocols (see Annex 12) specified the same number of qualitative interview were to take place in each district, operational constraints and smaller population sizes led some districts to have disproportionately more assessments completed - particularly for the FGDs where more participants were required. The sampling protocols for the FGDs emphasized selecting individuals based on their diverse backgrounds and perspectives, and were limited by the availability of eligible participants. For full details on the FGD sampling approach, see Annex 12.

To protect the safety of the children and enumerators, each assessment was only administered after the consent of a caregiver or teacher was given. The assessments were conducted at times that suited the child or parent being surveyed, and all participants were assured that their responses would be kept confidential and that any identification details would be safeguarded.

To ensure the quality of the data being collected, any issues or errors made in the field were reported to the External Evaluator directly to be recorded. The main issue that arose during data collection involved the samping of OOS girls, as described above. There were some other minor issues, which are discussed in the individual data reports prepared by the External Evaluator during the period of data collection.

Post data collection - After data was collected, electronic data including the individual surveys and assessments conducted in Tangerine, were uploaded directly to the secure data server. Qualitative data including interviews and discussions were transcribed by the Local Consultant and then provided to the External Evaluator. Upon completion of data collection, the External Evaluator cleaned the data to correct or remove incomplete records and records with invalid IDs. During this process, the data was also anonymized to remove any identifying details from the data set. The original data is stored securely. The cleaned, anonymized data is used for the analysis.

Summary of data collected - Of the 4,036 learning assessments collected by enumerators, 3,772 were of sufficient quality to be analysed further.[5] The following tables summarize the data collected by the enumerators. Note that the figures reported in table 2.8 reflect learners who were sampled and then followed to their household for additional surveys to be conducted with head of households and primary caregivers, according to the joint sample approach.

Table 2.7: *Quantitative Assessments Collected - Not Including Learning Assessments*

	HH - PCG	HH - HoH	Teachers	Classroom Observation	Head Teacher	Attendance Reports	Total
Target	N/A[2]	N/A[2]	N/A[3]	148	74	111	N/A
Collected Data[1]	3,270	3,298	2,271	168	107	262	9,376
% of Target	N/A[2]	N/A[2]	N/A[3]	114%	145%	236%	161%[4]

1 Raw data counts all observations with valid and unique IDs synchronized to Tangerine as of January 15th, 2018.
2 Targets for HoH and PCG depend on the number of sibling pairs in a household.
3 Targets for Teachers depend on the number of students in each class.
4 Overall % of target is based only on classroom observation, head teacher, and attendance report totals since the other assessments do not have targets.

Table 2.8: *Quantitative Assessments Collected - Learning*

	Collected Data[1]	Target	% of Target
In school girls	3,110	3,182	98%
In school boys	351	533	66%
Out of school girls	310	1,110	28%
All learning assessments	3,772	4,825	78%

1 Raw data counts all observations with valid and unique IDs synchronized to Tangerine as of January 15th, 2018.

Table 2.9: *Quantitative Assessments Collected - Benchmarking*

	Learning Benchmarking	Transition Benchmarking
Target	120	240
Collected Data[1]	122	340
% of Target	102%	142%

[5] Note that most of the dropped records were not valid assessments. The majority were incomplete assessments that may have few responses beyond the first few questions, or were clearly identified as test assessments used for practice during fieldwork.

Table 2.10: *Qualitative Assessments Collected - Focus Group Discussions*

Focus Group	Collected	Target	% of Target
In school girls	10	8	125%
Out of school girls	6	8	75%
Female caregivers/ mothers	8	8	100%
Male caregivers/ fathers	5	4	125%
In-school boys	6	4	150%
Community leaders	3	4	75%
All FGDs	38	36	106%

Table 2.11: *Qualitative Assessments Collected - Key Informant Interviews*

Interviewee	Collected	Target	% of Target
School Headmasters	8	8	100%
District School Inspectors (DSI)	4	4	100%
Provincial Education Director [1]	0	3	0%
Community Leader[1]	3	4	75%
CBE Teachers [2]	0	0	0%
Ministry of SME ministers	2	2	100%
Religious leaders	4	4	100%
CPC Chairs	4	4	100%
All KIIs	25	29	86%

1 The provincial education director and the community leaders were unavailable for interviews during the baseline data collection process. For this reason, enumerators were not able to conduct all the planned interviews with these groups.
2 There are four KIIs planned with CBE teachers. Since CBE is not implemented yet, these will be conducted after the Baseline data collection process is complete.

Mixed-Methods Approach to Data Analysis

The preceding tables described the total number of quantitative and qualitative data sources collected for the baseline evaluation. These are the foundation of the mixed-methods approach adopted for evaluation, as outlined by the MEL framework. Given the small number of participants, qualitative data sources are not

sufficient to make any robust conclusions or recommendations about the project. The rigorous protocols in place around the quantitative data sources, and the high number of observations in each of these evaluation tools make these the foundation of the conclusions and recommendations made for the project. The qualitative data are used to supplement the quantitative findings with context and a more nuanced view of the barriers these marginalized girls face in completing their education. The data in these assessments is a valuable tool in determining the mechanisms that relate the different topics in this report. For example, they provide insights into why attendance influences learning outcomes which can provide motivation for the project's theory of change. According to the project logframe (see Annex 1), the qualitative tools are an central component of the Sustainability Outcome and Intermediate Outcome indicators, specifically. It should be noted, however, that interviewee characteristics were not collected. Moreover, FGDs of in-school girls were not not segregated by age, so we are unable to comment on the different responses of FGDs by age. This kind of separation should be considered for the midline evaluation.

Throughout the report we comment on how the quantitative data and qualitative data support the same conclusion, and where the qualitative data may provide insights into causality that the quantitative data cannot. We also highlight specific areas where the qualitative instruments can be modified or expanded to provide even greater insights at later evaluation points.

2.5 Concerns Regarding Data Collection and Evaluation Design

While completing the baseline data collection and evaluation, some issues became apparent which may impact future evaluation.

Shortage of OOS Girls

Due mainly to issues finding OOS girls using the sampling methodology described by the MEL framework, the number of OOS girls in the sample fell short of target in the sampling locations. The target for data collection was 15 girls per location, while the enumerators managed to identify and collect data on an average of less than four girls per sample location.

Table 2.12: *Sampling of OOS Girls Across Districts*

	Chivi	Insiza	Mangwe	Mberengwa	Total
Target Sample Size	510	150	210	240	1,110
Data Collected	62	48	148	50	310
% of target reached	12.2%	32.0%	70.5%	20.8%	27.9%

The sample size of OOS girls in each of the four districts fell below the target levels. This is true despite a change to the sampling methodology after the first week of data collection that encouraged the inclusion of all CBE eligible OOS girls in the sample. This suggests that the ability of the evaluation team to identify OOS girls in the rural locations is substantially less than anticipated (particularly considering that the target sample size was not necessarily expected to include all OOS girls in these areas).

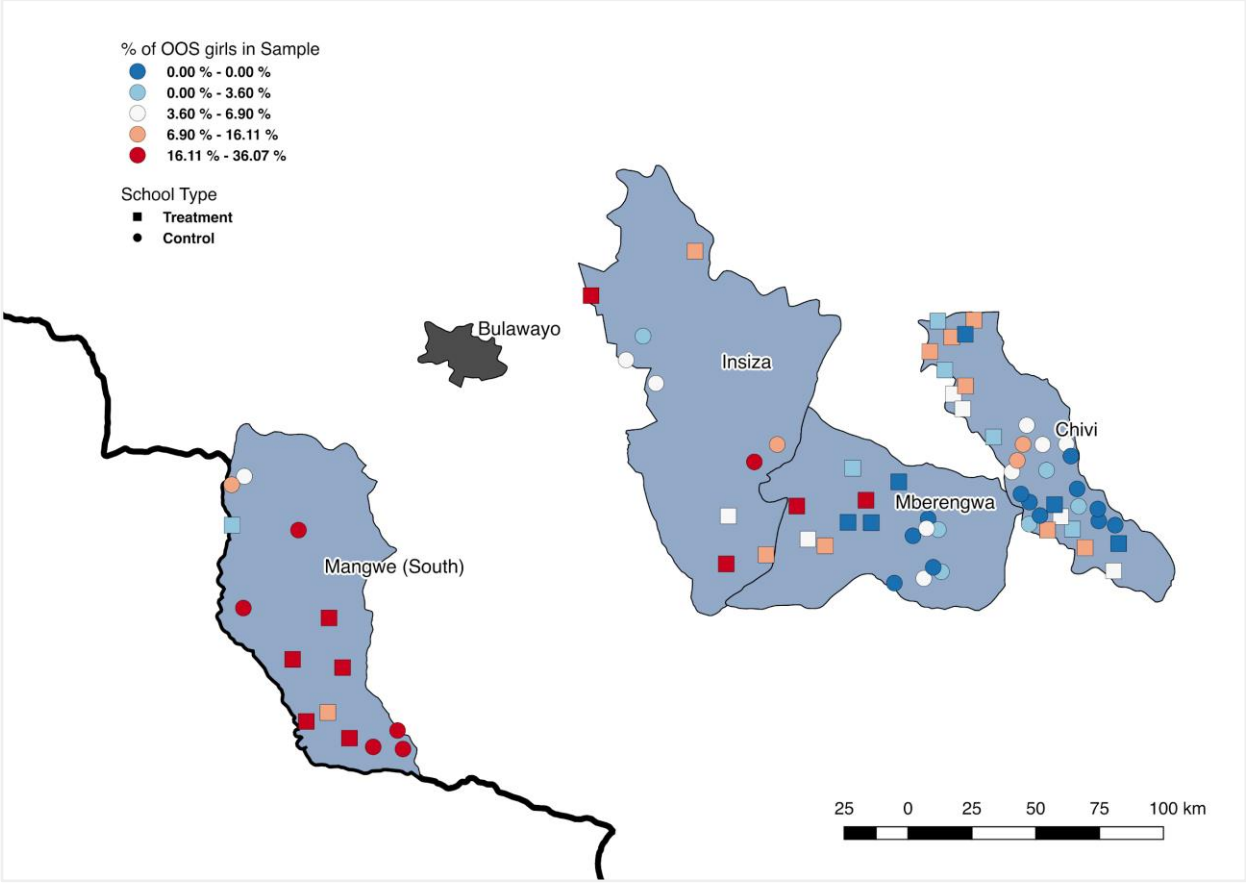
The failure of the project to identify a large enough sample of OOS girls calls into question the expected benefit (and value for money) of operating CBE programs in some of these locations. Ultimately, the feasibility of the CBE intervention will depend on the extent to which the IGATE-T sample size underestimates the actual OOS population in the program districts, and on the ability of the program to enrol a larger share of that population than were found by enumerators. There are reasons to believe that this is possible, at least in certain locations.

Discussions with the Local Consultant and enumerators suggest that some girls who drop out of school in the sample areas move to more-urban centres. But, other evidence suggests that the enumerator teams were not finding a complete sample of OOS girls in these locations. First, there are fewer OOS girls in the sample than we would expect given data from IGATE. Second, anecdotal evidence and qualitative reports suggest some of the in-school participants may have been reluctant to identify siblings living in the same households, perhaps due to perceived competition for the bicycles that are provided to some participants as part of the intervention. Third, it is possible that IGATE's campaign to promote the enrolment of girls in school made it less likely that households would identify OOS girls to enumerators.

There are also other reasons to believe that the baseline sample may under represent the true number of potential CBE participants available in the treatment locations. First, the sample only includes data on locations in the non-Camfed districts. It has been suggested that the Camfed districts may retain more OOS girls than the non-Camfed districts, due in part to variation in proximity to urban areas and the level of development in these locations. Second, the baseline sample includes a disproportionately large portion of locations in Chivi, the district with the lowest observed number of OOS girls. Third, it is possible that some girls who decide to relocate after dropping out of school would delay a move until after they take a CBE program.

There is also evidence that OOS girls are more prevalent in certain locations, particularly in the border district of Mangwe. This suggests that the program may be more feasible in some locations than others. The following map shows that percentage of learners in each sampling point who categorized as OOS girls. The same methods to identify OOS girls were used in all districts and sampling points. Note that the sample of OOS girls is heavily weighted toward Mangwe.

Figure 2.2: *Distribution of OOS Girls in the Baseline Sample*



At this point, we do not have the data to thoroughly assess the hypotheses regarding the reasons that the sample includes fewer OOS girls than expected. However, we plan to work with the project team to carefully monitor the rollout of the CBE program to assess their ability to successfully identify and recruit OOS participants into the program. Furthermore, the midline and endline analyses will work to address these questions through qualitative research and field visits.

Endline data from the IGATE provides some additional insight about the distribution of the OOS population; although it is limited by the fact that we are uncertain about the extent to which the sample underrepresents the total OOS population, and whether there are systematic differences in the ability to identify OOS girls across locations. The table below shows the percentage of sample households from IGATE in which an OOS girl was present during the endline data collection for IGATE. These numbers suggests that OOS girls were most common in the Beitbridge (Camfed) and Mangwe (non-Camfed) districts, and were also relatively common in Chivi (non-Camfed), Binga (Camfed) and Gokwe South (Camfed). Note that the presence of a OOS population appears to be most common close to international borders, and does not appear to be correlated with how rural a district is (represented in the table by population density).

Table 2.13: *OOS Prevalence and District Characteristics, IGATE*

	% sample HHs with OOS girls present	Population per cubic km	International Border

Non-Camfed districts			
Chivi	10.4%	46.87	No
Insiza	6.2%	12.20	No
Mangwe	12.5%	11.57	Botswana
Mberengwa	6.9%	36.66	No
Camfed districts			
Beitbridge	15.3%	6.30	Botswana & S. Africa
Binga	10.6%	10.43	Zambia
Gokwe South	10.2%	27.51	No
Lupane	7.0%	9.91	No
Nkayi	4.5%	22.59	No

1 Population density data from 2012 census, downloaded from citypopulation.de. Includes rural areas only and not any urban centre adjacent to or included in district boundaries.

Based on these numbers, we expected to observe one of the highest rates of OOS girls in Chivi during the IGATE-T data collection. Instead we saw one of the lowest in that district. It is not clear at this point whether the IGATE or IGATE-T samples are more representative of the true prevalence of OOS girls in these districts, or whether the variance in the samples indicate that the presence of OOS girls varies widely across school catchment areas even within the same district.

We recommend that the IGATE-T program exercises caution in implementing the CBE program in each location. This may involve recruiting participants to assure a large enough participant base before committing resources to run the program in any given location. It may also involve conducting additional surveying of OOS girls in other locations, including the Camfed districts. This would be helpful not only for assuring there is enough demand by OOS girls for CBE in these locations, but also generating a large enough sample size of OOS girls to meet the GEC targets and assure that midline and endline analyses achieve the minimum statistical power to assess learning outcomes.

Furthermore, because the OOS sample for which we have baseline data falls well short of expectation, we encourage the program to administer surveys and skills assessments to OOS participants at the beginning of the program, that will be readministered at the end of the program. Such data can complement the official baseline data to provide additional insight into the reach and effectiveness of the CBE programs.

Anticipated Difficulty Distinguishing Effect of IGATE and IGATE-T

IGATE-T is being implemented in the same set of treatment locations as the initial IGATE program. This introduces challenges for the causal interpretation of the difference-in-differences analyses that will be conducted at midline and endline.

Difference-in-differences analyses rely on a common trends assumption, requiring that in the absence of the intervention, outcomes in the treatment and control populations should change in similar ways. If the

outcomes within the treatment population change by more than outcomes within the control population, for example, the common trends assumption implies that the additional change in the treatment group can be attributable to the intervention. Such an assumption could be justified prior to the IGATE program, when locations were randomly assigned to the treatment or control group. But, now that IGATE has been completed, the treatment locations (having already received the IGATE interventions) may now be on a different path than the control locations (having not received IGATE). There is no longer any reason to believe that observed changes in outcomes over the next three years would be equal across treatment and control locations in the absence of the IGATE-T interventions. The common trends assumption is likely violated for the midline and endline evaluation of IGATE-T.

This means that the treatment effects that may be identified at midline and endline cannot be attributed to only the IGATE-T intervention. Rather, they may be caused by the IGATE-T intervention, delayed effects from the original IGATE intervention, or both.

We do not believe that this is necessarily a problem for the analysis. But, it will affect the interpretation of the results at later stages of the project.

There may be some opportunity to use variation in the intensity of IGATE and IGATE-T exposure to determine the marginal effect of different interventions on the overall impact. However, because all treatment locations will have received interventions from each program, it will not be possible to fully separate the effects from the two sets of interventions.

Anticipated Difficulty Determining the Combined Impact of IGATE and IGATE-T

Given that the IGATE-T project is effectively a continuation of the initial IGATE program in the same locations, the ideal endline evaluation of IGATE-T would be informative about the overall, aggregate impact of the entire IGATE and IGATE-T initiatives. However, the potential to do this is limited by a sampling methodology for IGATE-T that is largely independent of the work previously completed for IGATE.

For example, the baseline data collection for IGATE-T made no attempt to identify subjects from the IGATE endline sample so that we could track changes in their individual teaching and learning outcomes in the time since the IGATE endline analysis. The analysis may be able to do this to some extent at an aggregate level rather than use individually matched data. However, the potential for this is limited by there being limited little overlap in the locations selected as sample points for the IGATE-T and IGATE projects. Only 13 of the 37 treatment sample points for IGATE-T were also part of the IGATE sample. This disconnect was driven in part by the restriction placed on IGATE-T preventing it from collecting data in Camfed districts which were part of the IGATE sample, and a desire to limit attention to control locations that are geographically isolated from treatment locations.

In response to these concerns, the midline and endline analyses should rely more heavily on administrative data on enrolment and progression across a set of locations to inform conclusions about the overall impact on transition. Drawing precise conclusions about the impact on learning outcomes may be more difficult, but the midline and endline analyses will be able to say something along these lines through a comparison of aggregate data across districts and locations.

Short Time Window for Impact

The midline data collection is scheduled to begin less than 10 months after the completion of the baseline data collection. This represents a incredibly short window for implementing interventions with the expectation that fundamentally change attitudes, behavior, and academic performance.

According to the current schedule, there is an additional two years before the beginning of endline data collection. This is a more reasonable evaluation timeline over which real change may be achieved. However, we expect that even by the endline data collection, some of the program's impact will yet to be realized.

In our ex post assessment of the initial IGATE project, we identified the short time frame for implementation and evaluation as one of the most-likely reasons that the initial interventions fell short of the project's targets.[6] The possibility of an earlier endline data collection data has been considered for the IGATE-T project. However, we strongly encourage the program keep the endline data collection date as late as possible in the project schedule.

Limited Sample of Boys

The method for sampling in school boys involved finding siblings of sampled girls. Boys are not a primary target of the program, however, identifying boys this way yielded fewer boys than expected. The MEL framework estimated that a total of 533 boys would be included in the data collection using such a methodology. The enumerators identified and assessed only 66% of the expected number of boys.

The expected number of boys was based on calculations in the MEL framework that used IGATE 1 data to produce a rough estimate of the number of appropriate-age male siblings present in the households with girls in our sample. The disconnect between the number of boys in our sample and the estimate may be attributed to a combination of factors, including an overestimate of the number of in-school, primary-age males living in the households, a reluctance to identify siblings, or the rate at which enumerators would be able to reach these males at school (willingness to participate). Anecdotal evidence and qualitative accounts suggest that the primary issue may have been a reluctance to identify siblings to enumerators. This may have been due in part to perceived competition among participants for bicycles, and the evaluation team will look to gain additional insight into whether and why these were factors during the midline assessment.

Achieving a sample of the estimated sample size was not a requirement placed on the program by the GEC. Therefore, the analysis of the impact of the program on boys will be less informative than it would be with a larger sample size, but the failure to survey more boys does not undermine the evaluation of the target beneficiaries.

Limited Sample of In-school Girls

The in-school girl sample size achieved was only 98% of the target set by the External Evaluator in the MEL framework. This difference between target sample size and realized sample size was due largely to a failure to oversample in larger schools to the extent necessary to offset the undersampling in small schools

[6] Limestone Analytics, "IGATE-Technical Report" prepared for World Vision Canada, July 2017.

with too few students to achieve the targets. The process for doing this was laid out in the sampling protocols but was not fully implemented by the enumerators in the field.

To help correct for this difference and maintain a large enough sample size at midline, the Local Consultant and enumerator teams may need to exert additional effort to find and follow up with the same sample of girls at midline, reducing attrition rates.

3. Key Characteristics of Baseline Samples

3.1 Project Beneficiaries

As described in section 1, the project defines marginalized groups as individuals who are perceived as having lower value by either themselves or society more generally, have low agency, or are from financially insecure households. Using these definitions of marginalization, this project identifies three unique groups as target beneficiaries: in school girls, out of school (OOS) girls, and in school boys.

This section will identify some of the main characteristics of the target beneficiaries of the project by describing the characteristics of the Baseline sample.

3.2 Demographics of Learning and Transition Samples

The following tables and accompanying figures provide breakdowns of the sample across the intervention and control groups. Table 3.1 shows the sample distributions by region, table 3.2 by grade/out of school status, table 3.3 by age and table 3.4 by different types of disability. The differences in regional, age, and disability distributions across intervention and control groups are statistically insignificant. However, the distribution of grades is statistically different between these groups (at the 1% level). This is likely due to a higher proportion of OOS girls in the intervention group.

Note that over 40% of the sample comes from Chivi[7]. This may suggest that the sample is not perfectly representative of the overall population. Moreover, the sample does not include area who are part of the Camfed program which may also lead the sample to be imperfectly representative of the population. To conclude whether or not this an issue at midline, efforts should be made to collect administrative data from areas outside the sample to determine if the results from the sample should are comparable.

Table 3.1: *Evaluation Sample Breakdown (by District)*

	Girls		Boys	
District	Intervention	Control	Intervention	Control
Chivi	41.4%	44.0%	40.1%	49.1%
Insiza	12.5%	14.9%	12.9%	13.1%
Mangwe	22.9%	19.8%	16.9%	11.4%
Mberengwa	22.0%	21.0%	29.7%	24.0%

Note: The column totals do not sum to 100% - some data entry issues that had learners defined in the wrong districts.

The sampling methodology specified the enumerators target a sample with an equal number of girls from each. This should be compared with administrative data (if available) at midline to determine if this distribution is representative of the population of beneficiaries.

Table 3.2: *Evaluation Sample Breakdown (by Grade)*

Gender and grade	Intervention Group	Control Group

[7] Recall the sample was limited by the availability of control schools in the non-Camfed areas.

	Number	% of gender	Number	% of gender
Girls				
Grade 3	208	12.6%	217	12.9%
Grade 4	211	12.8%	220	13.1%
Grade 5	201	12.2%	212	12.6%
Grade 6	201	12.2%	228	13.6%
Grade 7	192	11.6%	209	12.4%
Form 1	233	14.1%	240	14.3%
Form 2	217	13.1%	247	14.7%
OOS	190	11.5%	107	6.4%
Boys				
Grade 3	51	30.4%	45	26.9%
Grade 4	40	23.8%	30	18.0%
Grade 5	35	20.8%	34	20.4%
Grade 6	27	16.1%	38	22.8%
Grade 7	15	8.9%	20	12.0%

Figure 3.1: *Evaluation Sample Breakdown (by Grade)*

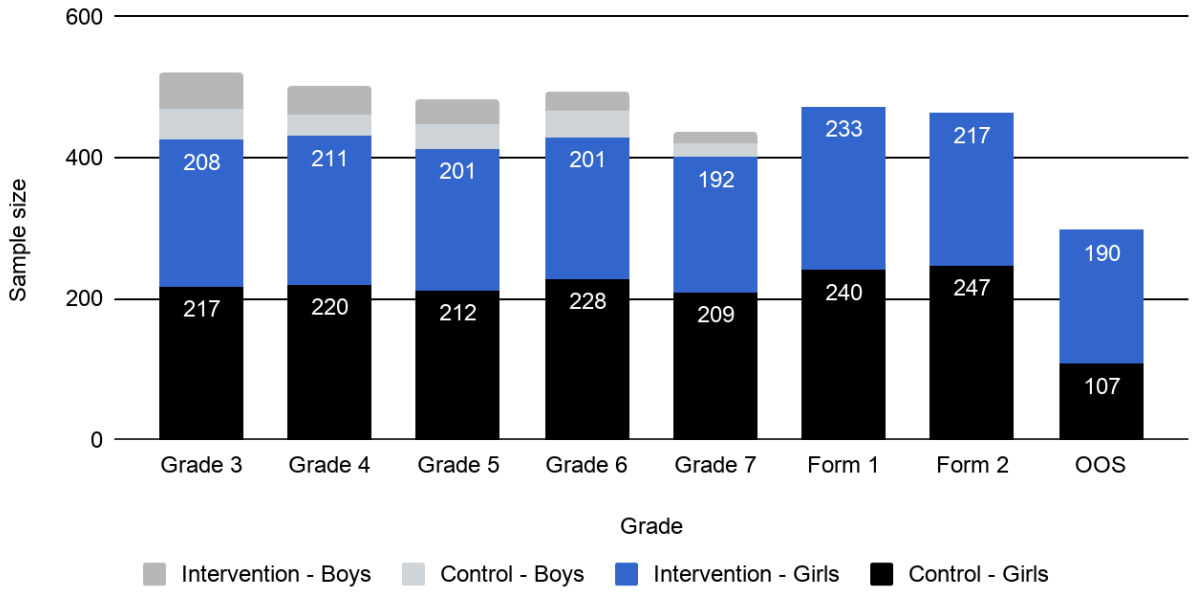


Table 3.3: *Evaluation Sample Breakdown (by Age)*

Age by Gender	Intervention Group	Control Group

	Number	% of gender	Number	% of gender
Girls				
8 years	61	3.7%	71	4.3%
9 years	151	9.2%	177	10.7%
10 years	209	12.7%	242	14.6%
11 years	179	10.9%	160	9.6%
12 years	212	12.9%	214	12.9%
13 years	224	13.7%	248	14.9%
14 years	230	14.0%	225	13.6%
15 years	214	13.0%	187	11.3%
16 years	94	5.7%	93	5.6%
17 years	60	3.7%	40	2.4%
18 years	6	0.4%	3	0.2%
Boys				
8 years	8	4.8%	12	7.3%
9 years	31	18.7%	33	20.0%
10 years	39	23.5%	26	15.8%
11 years	22	13.3%	33	20.0%
12 years	32	19.3%	24	14.5%
13 years	21	12.7%	25	15.2%
14 years	6	3.6%	9	5.5%
15 years	5	3.0%	1	0.6%
16 years	0	0.0%	1	0.6%
17 years	2	1.2%	1	0.6%

Disability Analysis

Using the GEC recommended Washington Group questions for evaluating the presence of disabilities in the baseline sample, the following table and figure show that approximately 10% of the sample have some sort of disability. During the baseline data collection process, the enumerators took all measures possible to use means and platforms that the child would normally use at either school or in the home if the assessments and surveys were done at home, so the students would be using the resources they would in their daily school routines. There were no provisions made at the baseline to adjust stimuli to accommodate specific disabilities. Note that in these region, there are standard practices in place about how to accommodate students with disabilities. Specifically, students with disabilities are referred to Schools Psychological Services to assess the severity of the disability and make a decision whether the child can

be safely handled at the school or its a special needs issue. The regulations also specify that every school should have disability-friendly sanitation facilities.

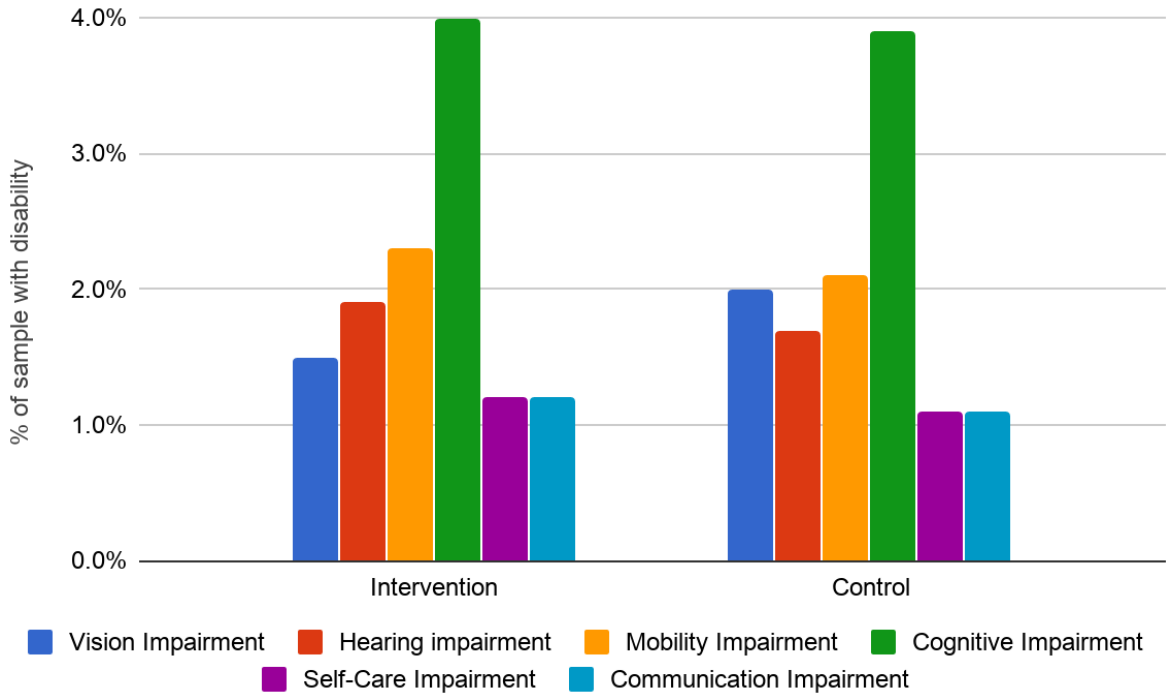
Since this report has identified a higher than expected proportion of the sample has some sort of disability, additional consideration should be made to ensure the learning assessments are administered in a way that accounts for the special needs of these students at subsequent evaluation points. The External Evaluator will work with the project team to assess the feasibility of making the assessments more accommodating at midline and endline evaluation points.

Table 3.4: *Evaluation Sample Breakdown (by Disability)*

Girls with a Disability	Intervention Group		Control Group	
	Number	Percent of Total	Number	Percent of Total
Vision Impairment	22	1.5%	31	2.0%
Hearing impairment	26	1.9%	27	1.7%
Mobility Impairment	35	2.3%	32	2.1%
Cognitive Impairment	58	4.0%	63	3.9%
Self-Care Impairment	16	1.2%	18	1.1%
Communication Impairment	18	1.2%	17	1.1%
Any disability	**148**	**10.1%**	**161**	**10.5%**

Note: **GEC states that the population identified as having a disability should include all those with difficulty *in at least one domain* recorded at *a lot of difficulty* or *cannot do at all*.** This cut off point will provide the most accurate representation of the population that has an impairment which may interact with barriers leading to educational marginalisation. These figures come from the primary caregiver surveys and thus reflect the responses of primary caregivers. However, the external evaluator compared these rates to the rates measured using the student's own self-reporting, and found the two sources came to very similar rates of disability within the sample.

Figure 3.2: *Evaluation Sample Breakdown (by Disability)*



While there are no significant differences between the prevalence of disabilities in the control and treatment girls (as shown above), the following table shows that this is also the case for boys and girls in the sample. While boys do show slightly higher incidence of mobility disabilities, all other disability rates are similar to girls in the baseline sample.

Table 3.5: *Gender Differences in Disabilities*

Girls with a Disability	Girls	Boys	Statistically Different
Vision Impairment	1.69%	0.00%	No
Hearing impairment	1.83%	5.71%	No
Mobility Impairment	2.27%	8.57%	Yes*
Cognitive Impairment	3.97%	8.57%	No
Self-Care Impairment	1.18%	5.71%	No
Communication Impairment	1.21%	2.86%	No
Any disability	**10.5%**	**17.1%**	**No**

3.3 Marginalized Groups: Characteristics and Barriers

The following two tables look at differences in the characteristics and barriers the control and treatment groups experience. These features in particular are highlighted because they directly affect the girls' education outcomes (both learning and transition) according to the project's theory of change. Each table includes a column to specify whether the differences between the intervention and control groups are statistically significant (*p < 0.1; **p < 0.05; ***p < 0.01).

Characteristics

Table 3.6: *Full Evaluation Sample Breakdown (by Characteristic)*

Percent of Girls with Characteristic	Intervention Group	Control Group	Statistically Different
Orphans & Absent Parents			
Single orphans	19.6%	17.5%	No
Double orphans	3.8%	4.1%	No
Living without both parents	30.9%	29.8%	No
Living with female headed household	44.1%	46.6%	Yes***
Married	0.7%	0.2%	Yes***
Is a mother			
Under 18	1.6%	1.0%	No
Under 16	0.3%	0.5%	No
Poor households			
Difficult to afford for girl to go to school	71.5%	76.5%	Yes***
Household doesn't own land	7.1%	5.5%	No
Material of the roof			
- Asbestos/ Concrete/ Tile	15.6%	17.5%	Yes***
- Iron/ Tin	45.0%	39.2%	Yes***
- Mud/ Wood/ Thatch	39.3%	43.3%	Yes***
Household unable to meet basic needs	44.9%	46.9%	No
Often goes to sleep hungry	39.2%	39.0%	No
Language difficulties			
Doesn't speak language of instruction	51.1%	49.5%	No
Parental education			
HoH has no education	10.0%	8.2%	Yes***
Primary caregiver has no education	10.6%	9.3%	No

Apostolic Household	29.2%	28.5%	No

Qualitative Check In: Family and Community Expectations and Attitudes

When they were asked to reflect on the expectations and attitudes community and family members held surrounding girls' education, members of these communities consistently commented on the following features:

- Chore burdens are shared equally by boys and girls now
- Parents not valuing girls education, but this is changing
- Attendance of girls affected by menstrual cycle

Parents held widely differing opinions and attitudes about girls and their education. In general though, discussions with parents and educators seem to suggest that people's attitudes towards girls education and division of chores have all been changing in ways that will support girls' education.

Many parents explain that people are now more aware of dividing up chores (at home and at school) equally between boys and girls so girls can still focus on their studies.

Parents also expressed changes in attitudes towards the value of girls' education. While some parents were aware that some people still believed girls' education was less valuable than boys', no one claimed to hold these views themselves. However, many teachers, headmasters, and community leaders claim that parents and caregivers were not particularly supportive of either genders' education in general.

Many community leaders, educators, and parents recognize that girls' education is often derailed because of pregnancy or marriage. Some parents raised concerns about girls marrying at increasingly young ages. Opinions about the appropriate age for girls to marry varied substantially across the different interviews and focus groups.

In their words:

(in response to question about how attitudes of parents presenting a challenge to girls' education) *"It really affects us because some parents within the community are not serious with their children's' education. You find the caregiver telling her child not to go to school because she wants her to do some house work or help the mother take care of the child's sibling. Especially girls."* - School Headmaster in Mangwe

"People have a belief that girls will get married and it will not be beneficial to them since the girls will support the families they will get married to." - Mother in Chivi

"We used to think to give household chores only to the girls after school and end up disadvantaging them and we thought boys should not do that, but it's now gradually changing." - Community leader in Chivi

"From where I reside I see change as boys nowadays go to the water well and fetch water and this change has been brought about by IGATE interventions through the Mother's Groups." - Mother in Mberengwa

"Boys and girls sometimes they exchange roles, you tell the boy to cook at times, you tell them to cook

sadza and to go fetch water so that they know when their sister is not around they may not be stuck as to what they will eat. We do all this so kids know all the tasks." - Community leader in Insiza

"Yes there is a great difference because way back parents would look after the kids and were strict in terms of morals, but now because of poverty girls are being married off by their fathers at an early age especially here in Mabika it's like now a taboo to see a girl married after 18 years because most are being forced into marriage when they are young." - Father in Mberengwa

Barriers to Education

Table 3.7: *Potential Barriers to Learning and Transition*

Sample Breakdown (Girls)	Intervention (Baseline)	Control (Baseline)	Statistically Different
Safety			
Primary caregiver: fairly or very unsafe travel to schools in the area	45.6%	46.2%	Yes***
Learner doesn't feel safe travelling to/from school	22.6%	26.0%	Yes***
Doesn't feel safe at school	5.3%	5.9%	Yes***
Parental/ Caregiver Support			
Insufficient time to study: high chore burden [1]	26.7%	23.3%	No
Doesn't get support to stay in school and do well	4.4%	2.9%	Yes**
School Facilities			
Insufficient seats for all students	15.8%	10.1%	Yes***
Difficult to move around school	3.4%	2.9%	No
Doesn't use drinking water facilities	22.0%	22.3%	No
Doesn't use toilet at school	0.5%	0.1%	Yes*
Doesn't use areas where children play/socialize	1.4%	1.0%	No
Teachers			
Disagrees teachers make them feel welcome	3.5%	3.5%	No
Agrees teachers treat boys and girls differently in the classroom	6.4%	5.9%	Yes***
Agrees teachers often absent from class	26.6%	24.3%	No
Access to Bicycle	11.9%	2.3%	Yes***

1. High chore burden is defined as having to do "A few hours" of chores per day or more.

Qualitative Check In: Infrastructure, School Resources, and Teaching Quality

When they were asked to reflect on the infrastructure and resources available for education, members of communities in the sample consistently commented on the following features:

- Difficulty affording tuition fees
- Students lack motivation, possibly because of teaching methods
- Lack of textbooks
- Teachers don't speak local languages

In general, parents and educators are concerned about the lack of updated textbooks, or having any textbooks at all. Access to paper, writing utensils, uniforms and other basic school supplies was also regularly brought up in discussions with these groups. In nearly every focus group discussion or key informant interview, people expressed concern about the ability of parents to pay for school fees. This is consistent with the findings in the tables above, which show that over 70% of households struggle to afford school fees.

There appears to be concern among some parents that the teachers at elementary schools don't speak the local language, which makes their children's education more difficult, or that teachers don't inspire their children to be motivated to go to/ excel at school.

There was also some mention of computer skills being learned by students. In areas where schools were offering some teaching on computers, these programs were widely admired. In areas where these programs were not yet available teachers, headmasters, and parents all expressed interest in bringing these resources to their schools.

In their words:

"The problem is not the teachers or the school. It is with us the parents as we are failing to pay the fees on time! How do we expect development if we do not play our role as parents and contribute to the growth of the school?" - Father in Keme, Mangwe

"We need help in terms of infrastructural materials like boreholes, text books that have the new curriculum. We also don't have electricity and we hope you will come up with projects that will empower us with electricity or solar panels so that we can build computer labs and teach children." -School headmaster, Mangwe

"Our problem lately is our children do not get teachers who speak their own language, the teacher does not know the local language." - Mother in Insiza

"No transport, no road network which is very bad, thus making it difficult to connect with the transport. Our school infrastructure is very poor, we have a dip tank which was funded by World Vision. This classroom was built by World Vision, so we hope they build more. No medication in clinics. If you do not have money you cannot be treated, we travel long distances." - Community leader in Mangwe

"Only challenge now is school fees and availability of schools closer to where they stay going to high school is a challenge." - Community leader in Chivi

"The challenge is in getting money for students who do not have money to go to school and accessing books since money has become a problem in the country." - Community leader in Insiza

"Infrastructure development is key in improving the quality of education. For instance we are faced by a number of challenges here which include lack of standard classrooms, shortage of books for our children. The greatest challenge being the unavailability of resources." - Head Teacher in Insiza

OOS Girl Analysis

Given the importance of OOS girls in this project, it would be worth examining the characteristics and barriers of this subgroup separately from the rest of the girls sample. The following table describes the characteristics of OOS girls. Girls who are out of school are much more likely to be mothers than their in-school counterparts, however this difference is only evident after the girls turn 16. OOS girls are also more likely to live without either parent in the household and come from a household with fewer economic resources. It is possible that this may be one of the reasons that few OOS girls were identified, since households may be reluctant to define girls who are mothers, who are married, who are working (possibly because they come from a household who could not afford tuition or have dropped out of school for other reasons), or who are otherwise acting as a head of household (because they have been orphaned or for some other reason), as "girls" anymore. No attempts have been made to confirm if this is the case but considering the comparatively high number of OOS girls who were identified when communities were approached to recruit for the CBE program[8], it is very likely that the approach led to fewer OOS girls being identified. For nearly every type of disability included in this analysis, OOS girls appear to experience the same or lower rates of a disability than in-school girls.

This table suggests that there may be specific characteristics that are associated with the choice to leave formal education, such as household finances and pregnancy. There don't appear to be significant differences in disability prevalence across girls who are in or out of school, suggesting this may not be reason girls leave formal education. However, as section 4 will discuss, disabilities do impact the learning of girls in school.

At this phase in the analysis we cannot infer causality quantitatively, however the next qualitative check in discussion suggests that community members do see these barriers keeping girls from continuing their education. Many qualitative reports cite that pregnancy or marriage occur *after* a girl has dropped out of school for other reasons, and is not necessarily the reason the girl left school. The most common explanations for this is that once the girl has left school, their employment prospects are quite poor, making marriage appear to be the girls' best option. This is consistent with the quantitative evidence presented in the next table, which shows there is no real difference in how often in school or out of school girls are

[8] The external evaluator was not directly involved in the efforts made to identify participants for CBE, however we have been consulted for discussions regarding sample sizes and possible assessments that could be used to evaluate the CBE sample at the start of the program.

mothers until after they turn 16, which is after girls tend to drop out of the education system. In addition, the table below makes it clear that OOS girls come from homes with fewer economic resources, which is the most commonly cited reason for girls dropping out in the qualitative data.

Table 3.8: *OOS Girl Sample Characteristics*

Percent of Girls with Characteristic	Intervention Group	Control Group	All Girls	Significant Difference Between OOS and IS Girls?
Disability				
Visual	0.0%	0.0%	1.7%	No
Hearing	3.4%	1.0%	1.8%	No
Mobility	0.6%	1.0%	2.3%	Yes*
Cognitive	4.1%	2.0%	4.0%	No
Self-Care	1.3%	1.3%	1.1%	No
Communication	0.7%	5.2%	1.2%	No
Any disability	6.0%	9.3%	10.5%	No
Orphans & Absent Parents				
Single orphans	24.6%	15.3%	18.5%	Yes**
Double orphans	6.5%	4.7%	4.1%	Yes**
Living without both parents	38.8%	28.6%	30.3%	Yes**
Living with female headed household	50.0%	49.5%	45.4%	Yes**
Married	2.6%	0.0%	0.5%	Yes***
Is a mother				
Under 18	11.8%	10.4%	1.3%	Yes***
Under 16	0.0%	0.4%	0.4%	No
Poor households				
Household doesn't own land	5.7%	3.9%	6.15%	No
Material of the roof				
- Asbestos/ Concrete/ Tile	10.3%	7.8%	16.7%	
- Iron/ Tin	43.5%	41.2%	42.1%	Yes***
- Mud/ Wood/ Thatch	48.7%	48.5%	41.2%	
Household unable to meet basic needs	62.7%	56.7%	46.3%	Yes***
Often goes to sleep hungry	56.9%	53.6%	39.2%	Yes***
Parental education				
HoH has no education	8.9%	10.8%	8.9%	Yes**
Primary caregiver has no education	13.7%	11.2%	9.9%	Yes*

Access to a Bicycle	7.1%	2.8%	14.3%	Yes***
Apostolic Household	28.8%	34.2%	29.0%	No

Qualitative Check In: OOS Girl Characteristics

Parents and learners are both likely to report pregnancy and difficulty paying school fees as primary reasons for girls dropping out of formal education. This is consistent with the quantitative results, and suggests that interventions designed to mitigate these factors may lead to improvements in transition outcomes for the project. However, some qualitative evidence suggests that at least in some areas it is more likely for girls to get married and get pregnant after dropping out of school for other reasons, citing that marriage is the best alternative if they are faced with poor employment prospects after not finishing school.

In their words:

"The other thing that usually lead to school drop-out, is that we the parents do not find money for the school levies. This is the major reason that I personally observe." - Father in Chivi

"children drop out of school before secondary because parents don't have the money." - Mother in Mangwe

"Early marriage for our children who start having boyfriends as early as grade 7 which is the main issue that affects girls thus forcing them to quit as most of them end up getting pregnant at the age of 13 years.

Another issue is that of too much workload at home and poor background that affect the kids esteem and confidence with other children at school." - Head Teacher in Mangwe

In response to question *"What do these girls do after leaving school?"*:

- *"Most of the time when I see a child at home not doing anything I realize they tend to become naughty or get pregnant*." - Mother in Mangwe

In response to question *"What makes them not to go to secondary?"*

- *"Lack of money"* - OOS girl in Mangwe
- *"Distance was the major challenge to me but some it was the issue of money to pay school fees"* - OOS Girl in Mberengwa

In response to question *"how often do girls quit school because of marriage or pregnancy?":*

- *"Rarely"* - OOS girl in Mangwe
- *"Yes it's an issue in this community"* - OOS Girl in Mberengwa

3.4 Intersection Between Key Characteristics and Barriers

This section attempts to shed light on the ways specific barriers can disproportionately affect different subsets of beneficiaries. Careful study of these intersections can help us better understand the unique challenges at the home, school, and system level facing key subgroups at the home, school and at the system level. The barriers included in the following tables were chosen for the analysis since they are the most common barriers within the sample, and thus make the best candidates for this kind of analysis. This is because if there are not enough girls within a subgroup or barrier, like some of the specific disability types, any reported differences between their reported barriers and the prevalence of that barrier in the whole sample may simply be noise.

The following table shows which barriers are more likely to be occur within specific subgroups. For example, over 33% of girls with uneducated parents are more likely to have a high chore burden than girls in the sample in general, where only 25.1% of girls have a high chore burden. Girls who are mothers are also much more likely than the overall population to report having a high chore burden. Girls with disabilities are more likely to also report that teachers treat boys and girls differently. For almost all disability types, they're also less likely to report that they feel unsafe travelling to school than girls in general. However, establishing causal relationships between these barriers and characteristics is difficult because of endogeneity issues. By looking at which barriers disproportionately affect certain subsets of the sample, it may at the very least provide some indication of which barriers to focus on if we wish to target our intervention to specific beneficiaries within the population (discussed in the next section). For example, girl's reporting disabilities seem to report insufficient seating at school at a higher rate that their peers. This might be because not being able to sit in a chair has a more negative impact on some who report a disability, which seems especially reasonable if the disability were something that affected the learners ability to stand or sit.

Table 3.9: *Potential Barriers to Learning and Transition*

Characteristic	% of Sample with Characteristic	% of girls with characteristic who report:					
Orphans & Absent Parents		**Teachers Often Absent**	**Teacher Treats Boys and Girls Differently**	**Feels Unsafe Travelling to School**	**High Chore Burden**	**Insufficient Seating at School**	**No Water At School**
Total Sample		25.6%	6.4%	24.9%	25.1%	12.8%	22.6%
Has a Disability	10.5%	24.5%	8.8%	23.5%	24.1%	17.3%	25.9%
- Visual	1.7%	19.2%	11.6%	15.1%	17.4%	17.0%	22.6%
- Hearing	1.8%	23.5%	8.5%	17.6%	25.5%	13.7%	17.6%
- Mobility	2.3%	25.8%	9.4%	15.8%	27.3%	17.6%	29.0%
- Cognitive	4.0%	24.6%	11.9%	24.8%	22.2%	22.4%	26.1%
- Self-Care	1.2%	33.3%	6.9%	13.5%	22.9%	15.2%	33.3%
- Communication	1.2%	9.38%	0.0%	15.8%	29.0%	12.5%	18.8%
Single Orphan	18.5%	26.7%	5.6%	21.4%	28.2%	12.3%	20.7%
Double Orphan	4.1%	20.2%	2.3%	30.6%	31.1%	19.1%	27.7%
Girl is married	0.48%	0.0%	0.0%	22.3%	28.6%	22.2%	11.1%
Girl is mother	1.28%	0.0%	0.0%	8.1%	59.5%	11.1%	0.0%
Lives without either parent	30.3%	24.2%	5.7%	20.7%	28.0%	12.0%	22.8%
Doesn't speak language of instruction	50.2%	25.7%	6.6%	24.2%	24.8%	13.4%	20.1%
Uneducated parent							
- Head of household	8.9%	25.5%	3.4%	20.1%	33.5%	14.6%	21.6%
- Primary caregiver	9.9%	23.3%	4.7%	20.1%	33.7%	17.3%	24.5%
Apostolic household	29.0%	26.2%	7.4%	22.1%	23.9%	12.8%	22.3%
Difficult for household to afford school	73.9%	24.6%	6.7%	26.3%	20.8%	13.8%	22.5%
Household doesn't own land	6.2%	20.2%	6.0%	16.2%	24.4%	8.59%	22.1%
Household unable to meet basic needs	46.3%	26.8%	5.7%	24.0%	27.1%	12.8%	21.2%
Gone to sleep hungry for many days in past year	39.2%	24.6%	6.7%	23.9%	28.3%	12.8%	21.3%

3.5 Appropriateness of Project Activities to the Characteristics and Barriers Identified

The tables in sections 3.3 and 3.4 highlight the specific characteristics and barriers faced by marginalized girls in rural Zimbabwe. A significant proportion of the sampled households have difficulty supporting girls' education financially, or do not have one or both parent present. In addition, a majority on of learners are attending school in a language that they either do not speak at home or do not speak at all, and over a quarter of sampled learners are required to dedicate at least several hours of their day to household chores. Over 10% of the sample also has some form of disability. These characteristics are all consistent with the project's definitions of marginalization as defined in the MEL framework. These include single-headed households, orphans, disabled children, and financially constrained households. The project's two sub groups of in-school and out of school girls are naturally larger groups, but it is important to note the prevalence of these other subgroups within each of these. These findings suggest that the marginalized groups the project intended to reach are indeed found in the sample. However, fewer married or pregnant girls are in the sample than expected. This may be due to the emphasis on primary girls in the sample, which is especially pronounced given the lack of OOS girls identified, or due to the reasons discussed in section 3.3.

The IGATE-T project's interventions will address some of these barriers. Specifically, the interventions have been designed to address learning in literacy, which will assist girls struggling with the language of instruction. Community meetings will also assist with improving household decisions for allocation of chores to children in school, and emphasizing the importance of keeping children in school when they are faced with financial difficulties and helping families and religious leaders become champions in encouraging girls to avoid marriage at a young age. The leadership clubs in and out of schools, if provided to girls who fall in these subgroups (such as orphaned girls and girls with disabilities), should prove particularly beneficial, especially given the results discussed in section 5 of this report. For this reason, the EE finds no reason to expect that the project will not be GESI transformative, as the project has predicted in the GESI self-assessment submitted by the project in April 2018.

However, the current interventions have not been designed to address resource-related barriers. Considering how prevalent these issues are in these evaluations, it is something the project should consider incorporating into the interventions. In the next section, the relationship between learning measures and these different characteristics is explored further to provide guidance for project interventions.

Although this project's Theory of Change does not explicitly aim to address the barriers facing marrier girls or girls with children, it is important to consider these two subgroups as they would both fall under the category of marginalized girls. As the sample is still largely within primary school, it is not surprising that the sample does not see significant numbers of girls in these categories. For this reason, the numbers relating married and mother subgroups to other potential barriers should be interpreted with extra caution as there are not enough girls in either group to know if the differences from the sample averages are just statistical noise. However, these subgroups will likely become more prevalent in the sample at subsequent evaluation points and will continue to be monitored as the project progresses.

Project's Contribution Box: Appropriateness of Project to Characteristics and Barriers

Findings from the baseline study continue to highlight the financial challenges faced by majority of households in supporting education needs for their children, especially where a household is missing either of the parents. Barriers faced by girls further affirm and validate the foundational issues underpinning the project design and theory of change and these include long hours spent by adolescent girls on household chores, language difference between mother tongue and language of instruction at school reflected in low comprehension performance.

Sample characteristics seem to align with general trends of socio-economic and food security status, orphanhood status, education levels of parents, safety school attendance and disability status. The only variation is the availability of out of school children, where the mapping exercise showed that out of school girls are present in target communities. Our IGATE 1 experience also show that there significant variation on some indicators when it comes to disaggregating data due to context, e.g. districts on the borders of the country having relatively higher migration rates and potentially higher dropout rates.

Table 3.10: *OOS Girls in IGATE-T Districts*

District	No. of Primary schools	Out of School Mapped (136/266 school communities-village data)			
		No. of schools mapped	OOS girls	OOS boys	Total
Beitbridge	21	13	273	419	692
Binga	28	28	641	840	1481
Chivi	39	11	142	154	296
Gokwe South	42	10	344	189	533
Insiza	39	7	53	67	120
Lupane	23	18	288	441	729
Mangwe	23	8	179	236	415
Mberengwa	30	25	239	342	581
Nkayi	21	16	280	375	655
Total	**266**	**136**	**2439**	**3063**	**5502**

The project's theory of change is consistent with key barriers identified (including self reported leadership skills influencing literacy and numeracy) and attitudes and perceptions (reflected in correlation between HH not contributing school fees and uneducated parents, disability status, apostolic households and learning outcomes) but needs to be improved to be more explicit on issues like teenage pregnancy (from qualitative findings), disability and teaching quality issues or gaps (teacher attendance). The project plans to review the Theory of Change in light of these baseline highlights. Teacher absenteeism will be added as an underlying assumption of IGATE T's Theory of Change, as the project does not have total control

over, although can be partly addressed through the Whole School Development by emphasizing on importance of regular attendance to learning.

3.6 Notable Differences Between Treatment and Control Schools

On most dimensions, treatment and control schools were similar. There were, however, a few notable exceptions.

Language

A noticeably higher percentage of treatment schools reported English as their language of instruction, while control schools reported more Ndebele and Kalanga. This may have implications for the implementation of the intervention, if language barriers are present.

Table 3.11: *School Differences - Language of Instruction*

Language of Instruction	Control Schools	Treatment Schools
English	42%	63%
Kalanga	36%	18%
Ndebele	22%	18%

Bicycle Access

In control schools, an average of 4.5% of students at each school had access to a bicycle. This is compared to an average of 18.5% in treatment schools. This difference is significant well beyond the 1% level, and may likely be the result of the BEEP program in the original IGATE program. This difference may indicate different barriers facing those who live far from school in terms of accessing education in the treatment and control groups.

Teaching Methods

Treatment schools were more likely to report that teachers had received training in teaching methods for math and literacy, as well as in gender sensitive teaching methods. This could be the result of sustained impact from IGATE 1. If the intervention is targeting teaching methods, it is possible that we might not observe the same results in the treatment population as we would if it we were targeting schools with less existing training.

Table 3.12: *School Differences - Teacher Training Methods*

Training Methods	Control Schools	Treatment Schools
% of Schools Training Teachers in Literacy Methods	71%	87%
% of Schools Training Teachers in Mathematics Methods	62%	78%

% of Schools Training Teachers in Gender Sensitivity Methods	44%	55%

4. Key Outcome Findings

4.1 Learning Outcomes

The learning assessments and boy/girl interviews are the main tools used for evaluation of the IGATE-T baseline. These tools ask questions directly to the sampled children, and assess their learning abilities through several standardized tests. The learning assessments include Early Grade Mathematics Assessment (EGMA), Secondary Grade Mathematics Assessment (SeGMA) levels 1, 2, and 3, Early Grade Reading Assessment (EGRA), Secondary Grade Reading Assessment (SeGRA) levels 1, 2, and 3, and a financial intelligence tool. Which tests a child was assessed on depends on their educational status. The following table describes which assessments were administered to which children.

Table 4.1: *Schedule of Assessments*

Interviewees at baseline	Girl/Boy survey	EGRA/ EGMA	SeGRA/ SeGMA 1	SeGRA/ SeGMA 2	SeGRA/ SeGMA 3	Financial Intelligence
Grade 3	Yes	Yes				
Grades 4 - 5	Yes	Yes	Yes			
Grade 6 - 7	Yes	Yes	Yes	Yes		
Form 1 - 2	Yes	Yes	Yes	Yes	Yes	
OOS	Yes	Yes	Yes			Yes

The EGRA and EGMA assessments are internationally used standardized tests to measure the literacy and numeracy skills of children in primary school. The EGMA assessment addresses a student's abilities in number identification, quantity discrimination, missing number (patterns), addition and subtraction, and word problems. The EGRA assessment addresses a student's abilities in identifying letter sounds, word reading, oral reading, and reading comprehension. SeGRA and SeGMA add grade-appropriate questions in reading comprehension and math to assess the skills of older students. These tests are intended to be done at the child's school. However, if the student that has been selected is unavailable that day for any reason, the test can be done either at school the next day or at home at the next available time.

The financial literacy assessment is designed to determine if an OOS girl understands the concepts of profit, interest, and savings by presenting them with word problems. Most of the questions in this assessment involve presenting the girl with scenarios that they may encounter in their daily lives if they are employed or self-employed. See Annex 7 for the complete assessments.

4.2 Scoring Learning Outcomes

An aggregate learning score is needed to compare overall learning levels in intervention and control groups and track learning progress overtime. These scores range from 0 to 100 points and aggregate scores from all the subtasks used in the literacy and numeracy learning assessments. Following the standard approach, all subtasks are weighted equally, independently of the grade of the girls tested (so each girl's score is a weighted average of their scores on only the subtasks they were assessed on). These aggregate scores

will be used to estimate the project's impact on learning, the learning target via 0.25SD per year formula, and the project's achievement. To gauge progress on tasks the have previously encountered, scores on EGRA/EGMA tasks alone have also been presented in the tables that follow since girls of all grade levels must take these.

Each subtask's score is obtained as the total of correct answers over the total number of items. The Oral Reading Fluency score is an exception as it is to be measured in Words Per Minute (WPM). The arbitrary max that we set is 100 WPMs; this reflects the expectation that by the end of primary school all students should be able to read 90-120 WPMs. WPMs higher than 100 are set to 100. For every WPM under 100, the standardised score out of 100 is reduced by 1 mark (i.e. 1 WPM = 1/100).

Literacy

The following two tables present girls' performance on literacy tests. Table 4.2 displays their average performance on all EGRA subtasks. Since all grades took these, this shows the improvement in literacy skills as girls go through school. This will henceforth be referred to as the "aggregate literacy score". Table 4.3 shows their score as a standardized measure (out of 100) of performance on all the tasks given to that grade level (refer to Table 4.1). Boys' grades follow very similar patterns (for more details see Annex 17), but are slightly lower at each grade level (see Figures 4.5 and 4.6).

Table 4.2: *Average Aggregate Literacy Score (EGRA only)*

Grade	Intervention Group Mean (/ 100)	Control Group Mean (/ 100)	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	25.7	26.4	17.2	17.4
Grade 4	30.8	34.6	19.6	18.2
Grade 5	36.6	39.7	18.9	18.7
Grade 6	44.3	45.7	17.8	17.3
Grade 7	52.0	50.2	16.5	16.7
Form 1	53.5	53.0	13.8	17.6
Form 2	54.4	53.1	16.2	15.3
OOS	35.5	39.1	21.0	21.1

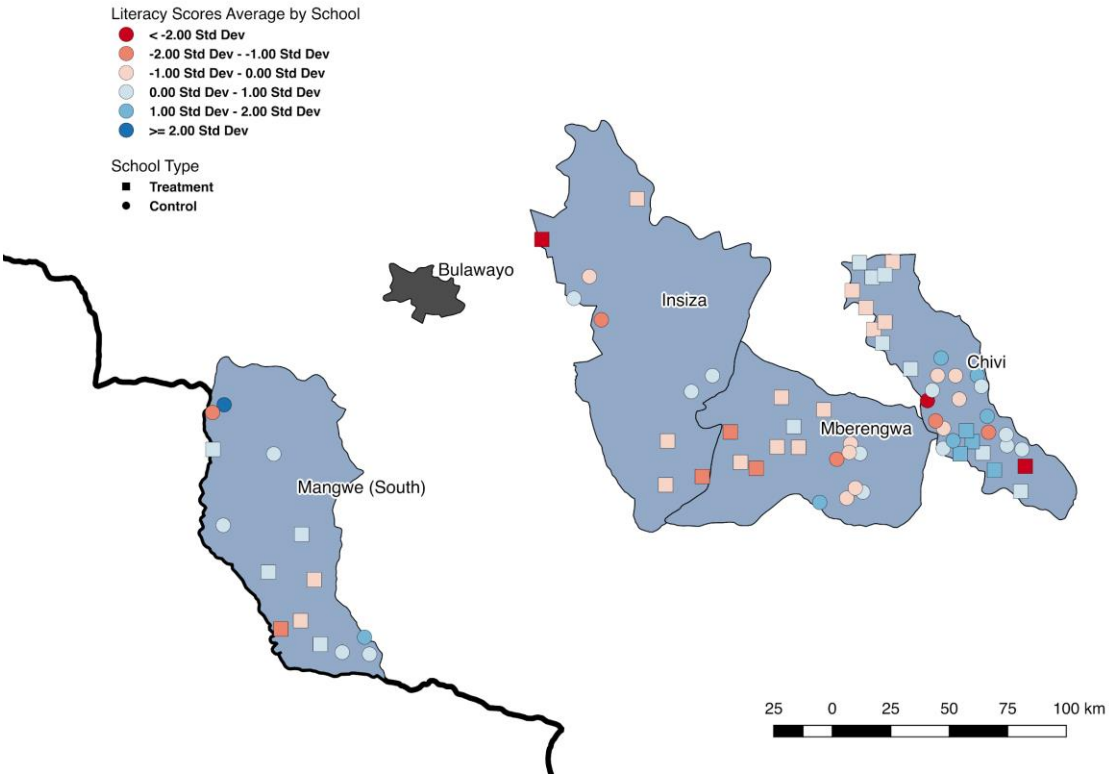
Table 4.3: *Average Literacy Score (EGRA and SeGRA Combined)*

Grade	Intervention Group Mean (/ 100)	Control Group Mean (/ 100)	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	25.7	26.4	17.2	17.4
Grade 4	29.7	33.4	18.9	17.6
Grade 5	35.9	38.6	18.8	18.4
Grade 6	38.6	40.0	15.9	15.8
Grade 7	47.2	45.8	16.0	16.3
Form 1	43.3	43.7	12.5	15.5
Form 2	45.4	43.7	15.1	13.8
OOS	40.6	44.7	23.8	23.5

Note that the differences in girls' literacy scores between intervention and control groups are not statistically significant at any standard confidence level.

The following map describes the differences in literacy scores across the different sampling point to show the existence of variation across schools.

Figure 4.1: *Literacy Scores by School*



Numeracy

The following two tables present girls' performance on numeracy tests. Table 4.4 displays their average performance on EGMA subtasks (their aggregate numeracy score). Since all grades took these, this shows the improvement in numeracy skills as girls go through school. Table 4.5 shows their score on all subtasks, as a standardized measure out of 100 of performance on all the tasks given to that grade level (see Table 4.1).

Table 4.4: *Average Aggregate Numeracy Score (EGMA only)*

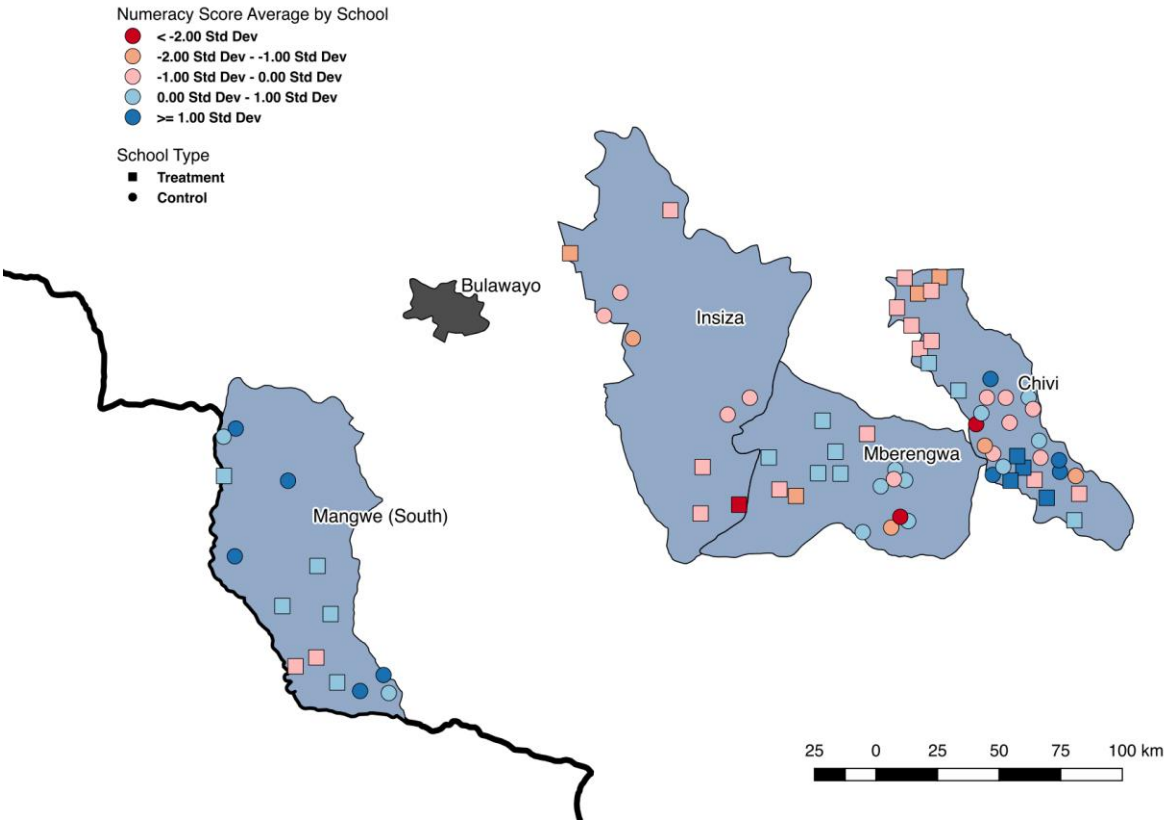
Grade	Intervention Group Mean (/ 100)	Control Group Mean (/ 100)	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	51.0	52.7	20.4	18.6
Grade 4	55.5	58.8	18.7	18.4
Grade 5	63.8	66.8	17.6	17.7
Grade 6	70.2	70.8	15.5	17.4
Grade 7	79.5	77.7	15.0	15.4
Form 1	76.3	75.8	13.4	18.0
Form 2	75.3	73.6	15.7	17.4
OOS	64.6	66.0	21.1	23.2

Table 4.5: *Average Numeracy Score (EGMA and SeGMA Combined)*

Grade	Intervention Group Mean (/100)	Control Group Mean (/100)	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	51.0	52.7	20.4	18.6
Grade 4	49.5	52.4	16.7	16.3
Grade 5	57.0	59.7	15.8	16.0
Grade 6	56.9	57.7	12.8	14.6
Grade 7	65.7	63.8	13.1	13.2
Form 1	57.1	56.8	10.8	14.1
Form 2	57.3	56.0	13.4	14.3
OOS	64.5	65.8	21.1	23.1

The differences in girls' numeracy scores between intervention and control groups are not statistically significant at any standard confidence level.

Figure 4.2: *Numeracy Scores By School*



Financial Literacy

The following table summarizes the financial literacy scores of out of school girls.

Table 4.6: *Financial Literacy*

Grade	Intervention Group Mean (/100)	Control Group Mean (/100)	Intervention Group Standard Deviation	Control Group Standard Deviation
OOS	13.7	16.1	13.8	14.4

Note that the differences in financial literacy scores between intervention and control groups are not statistically significant at any standard confidence level. In general, performance on the financial literacy tests was quite poor. As noted in Annex 22, there is some concern that since the financial literacy assessments were not translated into local languages in advance, it is possible that the adhoc translations led to some inconsistency in the way questions were asked. This should be considered at the midline and endline evaluation points.

Across all skills tests (literacy, numeracy, and financial literacy) performance was relatively poor. Learners typically performed better as they got older, however Form 1 and Form 2 students do have slightly lower averages than younger students, likely due to the high difficulty level of SeGRA/SeGMA 3 subtasks, which only Form 1 and Form 2 students have to take. The next tables show the breakdown of performance on each subtask.

Learning Assessment Subtasks

The following two tables, and Figures 4.3 - 4.4, breakdown students' average scores on each subtask, given their grade. As you might expect, learners do better on these subtasks as they progress through education. However, even students at higher grade levels tend to do quite poorly on some specific subtasks such as letter sound identification, literacy comprehension and analytical skills, and numeracy word problems. The tables following Table 4.7 and Table 4.8 look at the distribution of students' proficiency in each subtask to provide further insights into the skill levels of learners in the sample.

Table 4.7: *Average Literacy Scores by Subtask - by Grade*

Literacy Subtask	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS
Letter Sound Identification	9.61%	9.49%	10.6%	13.3%	14.6%	16.9%	17.8%	7.65%
Familiar Word	51.8%	60.3%	71.0%	81.5%	88.3%	92.5%	90.8%	67.8%
Invented Word	37.0%	41.5%	50.4%	61.7%	72.6%	74.4%	75.9%	50.4%
Oral Reading Fluency	43.2%	53.8%	63.9%	77.5%	87.1%	91.2%	91.4%	64.1%
Comprehension	4.46%	10.6%	13.1%	19.0%	32.9%	29.4%	33.2%	13.4%
Comprehension + Analytical Skills	-	12.2%	25.0%	31.3%	39.2%	43.6%	48.4%	37.5%
Comprehension + Inferential Skills	-	-	-	8.61%	16.3%	14.8%	16.5%	-
Short Essay	-	-	-	-	-	8.81%	11.2%	-

Figure 4.3: *Average Literacy Scores by Subtask*

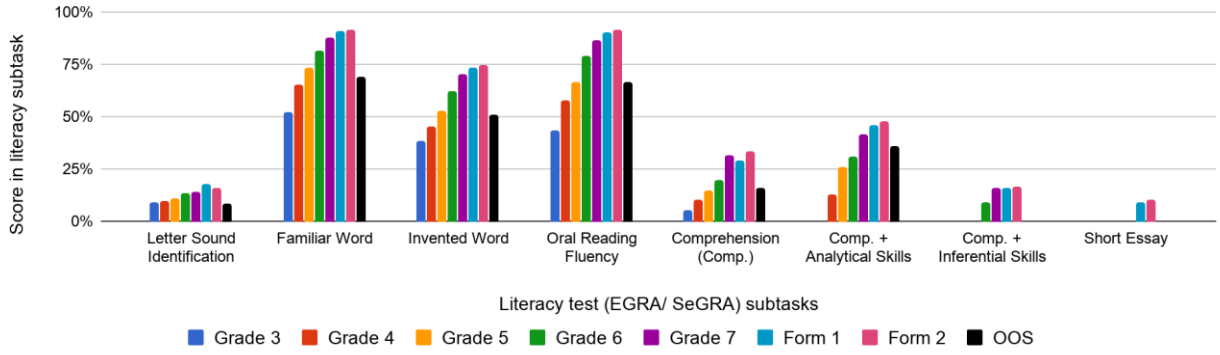
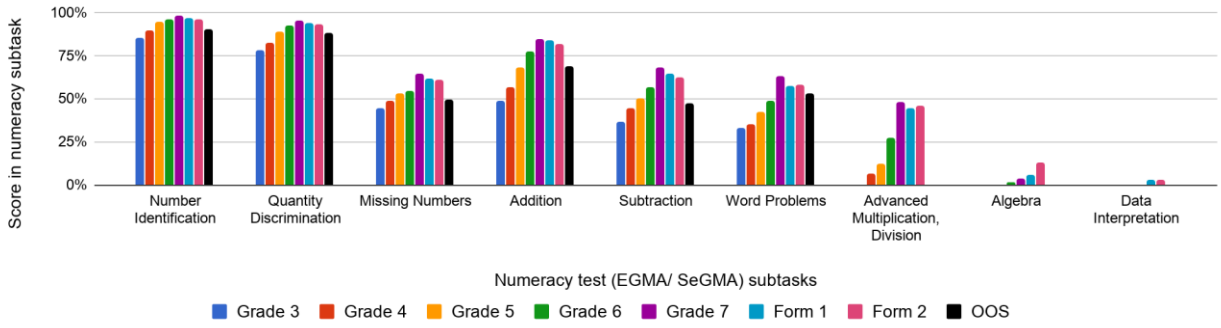


Table 4.8: *Average Numeracy Scores by Subtask - by Grade*

Numeracy Subtask	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS
Number Identification	84.2%	88.2%	93.3%	96.7%	97.8%	97.7%	96.3%	90.9%
Quantity Discrimination	76.1%	80.3	89.7%	92.6%	95.1%	95.9%	92.6%	88.0%
Missing Numbers	43.4%	48.3%	50.6%	54.0%	64.4%	62.4%	61.7%	48.9%
Addition	48.4%	55.1%	65.6%	77.9%	85.4%	83.9%	81.6%	69.1%
Subtraction	35.3%	41.8%	49.8%	59.9%	72.7%	71.7%	69.7%	53.4%
Word Problems	34.7%%	34.3%	42.7%	49.5%	63.5%	57.2%	58.9%	50.3%
Advanced Multiplication, Division	-	7.31%	9.78%	25.5%	52.0%	43.8%	45.5%	-
Algebra	-	-	-	1.76%	4.04%	5.00%	13.2%	-
Data Interpretation	-	-	-	-	-	3.73%	2.75%	-

Figure 4.4: *Average Literacy Scores by Subtask*



The following tables describe the proportion of girls in each grade that range between “non-learners” (meaning they received a score of 0) or “proficient” (meaning they received a score between 81-100%) on a given subtask in the literacy and numeracy assessments. This emphasizes the areas where girls most consistently struggle (for example, over a third of girls *at all grade levels* are non-learners in letter sound identification). Even on the tasks with the highest level of proficiency, there is still some room for improvement. For example, even in numeracy, over 50% of grade 6 girls aren’t proficient at many of the subtasks. This means that interventions that improve girls’ abilities in these areas can still contribute to the targeted improvement of 0.25 SD.

The following two highlight the skills girls struggled with, on average. Annex 16 breaks this down fully by grade. The next four tables specifically focus on the upper and lower portions of this learning distribution to identify the proportion of learners who are either non learners or proficient learners in each subtask, in each grade.

Table 4.9: *Distribution of Girls' Skill Levels - Literacy*

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	43.1%	50.3%	5.9%	6.7%
Familiar Word	6.9%	10.2%	17.8%	65.1%
Invented Word	12.6%	17.1%	35.2%	35.1%
Oral Reading Fluency	6.1%	13.7%	26.1%	54.0%
Comprehension	43.8%	33.2%	21.0%	2.0%
Comprehension + Analytical Skills	16.0%	37.6%	38.7%	7.7%
Comprehension + Inferential Skills	34.5%	59.7%	5.6%	0.2%
Short Essay	11.0%	89.0%	0.0%	0.0%

Table 4.10: *Distribution of Girls' Skill Levels - Numeracy*

Numeracy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	0.7%	1.8%	11.9%	85.7%
Quantity Discrimination	1.3%	3.5%	18.6%	76.6%
Missing Numbers	2.5%	31.8%	57.6%	8.1%
Addition	2.5%	10.7%	46.5%	40.2%
Subtraction	5.0%	22.4%	51.9%	20.7%
Word Problems	12.6%	29.8%	33.9%	23.7%
Advanced Multiplication, Division	27.6%	33.6%	35.4%	3.1%
Algebra	69.6%	27.7%	2.6%	0.0%
Data Interpretation	87.3%	12.2%	0.5%	0.0%

Foundational Skills - Literacy

Tables 4.11 and 4.12 shows the proportion of girls in each grade who are either non learners or proficient learners in each literacy subtask. Tables 4.13 and 4.14 show the proportion of girls in each grade who are either non learners or proficient learners in each numeracy subtask. Nearly all girls sampled, regardless of grade, do poorly with letter sound identification and reading comprehension in literacy assessments. This is consistent with earlier findings that suggest many children do not speak the language of instruction. Over a third of all students struggle with missing number problems and word problems. Focusing on secondary students, fewer than 10% of students are considered "proficient" in any of the subtasks in the

SeGRA/SeGMA assessments. Apart from advanced multiplication and division, over 90% of all secondary school students are either "non learners" or "emergent learners" on all SeGRA/SeGMA subtasks. Focusing on these skills specifically in the IGATE-T interventions may allow the project to see significant improvements in learning outcomes.

Table 4.11: *Foundational Literacy Skills - Percent Non Learners by Grade*

Literacy Subtask	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS
Letter Sound Identification	48.6%	53.6%	41.3%	42.3%	35.4%	33.0%	32.7%	60.5%
Familiar Word	14.9%	11.8%	8.5%	3.5%	1.0%	0.9%	1.8%	13.7%
Invented Word	25.0%	21.8%	14.9%	7.9%	4.2%	4.3%	4.6%	18.9%
Oral Reading Fluency	12.1%	10.4%	6.5%	4.0%	1.0%	0.9%	0.9%	14.2%
Comprehension	77.4%	59.2%	51.7%	39.3%	22.4%	22.7%	23.5%	56.8%
Comprehension + Analytical Skills	-	57.9%	30.8%	21.2%	7.6%	7.1%	6.2%	19.4%
Comprehension + Inferential Skills	-	-	-	50.3%	26.2%	33.2%	28.7%	-
Short Essay	-	-	-	-	-	11.4%	10.7%	-

Table 4.12: *Foundational Literacy Skills - Percent Proficient Learners by Grade*

Literacy Subtask	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS
Letter Sound Identification	0.0%	0.4%	0.0%	0.0%	0.0%	1.3%	2.8%	0.5%
Familiar Word	27.9%	37.4%	59.2%	74.6%	83.9%	89.7%	88.5%	56.8%
Invented Word	8.2%	15.6%	1.4%	35.8%	50.0%	57.9%	63.6%	27.4%
Oral Reading Fluency	11.1%	25.1%	35.8%	60.7%	78.1%	84.5%	84.8%	48.4%
Comprehension	0.0%	0.4%	1.5%	0.0%	3.1%	2.6%	6.5%	1.6%
Comprehension + Analytical Skills	-	5.3%	1.9%	3.9%	5.4%	7.1%	12.4%	16.7%
Comprehension + Inferential Skills	-	-	-	0.5%	0.5%	0.0%	0.0%	-
Short Essay	-	-	-	-	-	0.0%	0.0%	-

Foundational Skills - Numeracy

This table identifies certain subtasks that a high proportion of girls never master. For example, even as girls get older, a significant proportion of them remain non-learners in math problems and advanced multiplication and division. The following tables show that a significant number of girls never become proficient at tasks such as addition and subtraction, which are a necessary foundation to be able to understand more complicated subtasks. It is likely that improving girls' abilities in basics like addition and subtraction would lead to gains in other subtasks as well. In addition, the findings in the previous two tables show that improvements in literacy may also lead to improvements in numeracy as well. For example, word problems require a proficiency in reading comprehension.

Table 4.13: *Foundational Numeracy Skills - Non Learners by Grade*

Numeracy Subtask	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Form 1	Form 2	OOS
Number Identification	0.5%	0.9%	1.0%	0.5%	0.0%	0.0%	0.0%	3.2%
Quantity Discrimination	3.4%	2.4%	1.0%	0.5%	0.5%	0.0%	0.0%	3.2%
Missing Numbers	3.8%	4.3%	3.0%	1.5%	1.0%	1.3%	1.4%	4.2%
Addition	6.3%	3.8%	4.5%	0.5%	0.0%	0.0%	0.5%	5.3%
Subtraction	13.0%	8.1%	7.0%	2.5%	1.0%	0.0%	1.4%	7.9%
Word Problems	25.5%	23.7%	12.4%	8.0%	3.1%	6.4%	7.4%	14.7%
Advanced Multiplication, Division	-	55.8%	50.0%	23.4%	6.6%	13.3%	15.1%	48.2%
Algebra	-	-	-	83.4%	71.6%	70.3%	54.7%	-
Data Interpretation	-	-	-	-	-	86.4%	88.7%	-

Table 4.14: *Foundational Numeracy Skills - Proficient Learners by Grade*

It is worth noting that many of the subtasks that girls struggle most with are directly related to their understanding of the language of instruction. Recall from table 3.6 that nearly half of all girls report that they do not understand the language of instruction. This may explain the generally poor performance on tests that are tied to understanding of English, such as word problems, invented words, and comprehension skills at all grade levels. Note that letter sound identification tasks are typically done extremely poorly, which is not intuitive given their ability to perform seemingly more difficult language tests more successfully. This may suggest that the enumerators were particularly picky about the accents or emphasis children put on these sounds during the assessment. Together, this subtask analysis identifies a key dimension of marginalization. The girls who are non-learners in these dimensions may be the most likely to experience negative transition outcomes.

Foundational Skills - Financial Literacy

The following table separates the financial literacy assessment by the three types of subtasks in the assessment: understanding cash flows, personal finance and banking, and understanding situational context. While over 30% of all OOS girls are non-learners in all of these skills, personal banking shows the greatest cause for concern, as 83% of girls are non-learners. Dedicating CBE curriculum towards teaching these skills may lead to highly beneficial results for the learners everyday lives, while allowing the project to see large improvements in learning.

Table 4.15: *Distribution of Girls' Skill Levels - Financial Literacy*

Financial Literacy	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Understanding Cash Flows	59.7%	35.5%	4.3%	0.5%
Personal Finance and Banking	85.5%	14.0%	0.5%	0.0%
Understanding Situational Context	33.1%	33.0%	25.0%	7.9%

"Grade Achieved" versus Grade Enrolled

Based on the MEL framework, which has identified the assessments to be administered to students enrolled in particular grade. However, the assessments were assigned to grade levels with the understanding that some subtasks would be difficult for some. This is evident in the last section, which highlights how many students are non-learners in many subtasks, meaning they got 0% on a particular subtask in the learning assessments. For this reason, the level of proficiency to have achieved a particular grade level is understood to be either an "established" or a "proficient" learner in the subtasks relevant to that grade (as per the MEL Framework). The following table identifies the subtasks and proficiency levels that are required to have achieved a given grade level in the context of this project.

Table 4.16: *Subtasks Used to Measure Relative Grade Levels Achieved versus Enrolled Grade*

Achieved Grade Level	Relevant Subtasks - Literacy	Relevant Subtasks - Numeracy	Literacy Skill Level Required
Grade 1	EGRA 1, 2, 3	EGMA 1, 2	At least established in all subtasks.
Grade 2	EGRA 4	EGMA 3, 4	At least established in all subtasks.
Grade 3	EGRA 5	EGMA 5, 6	At least established in all subtasks.
Grade 4	SeGRA 1	SeGMA 1	At least established in all subtasks.
Grade 5	SeGRA 1	SeGMA 1	Proficient in all Grade 1 subtasks,at least established in Grade 2-5 subtasks.
Grade 6	SeGRA 2	SeGMA 2	Proficient in all Grade 1 and 2 subtasks, at least established in Grade 3-6 subtasks.
Grade 7	SeGRA 2	SeGMA 2	Proficient in Grade 1, 2, and 3 subtasks, at least established in Grade 4-7 subtasks.
Form 1	SeGRA 3	SeGMA 3	Proficient in Grade 1, 2, 3, and 4 subtasks, at least established in Grade 5-7 and F1 subtasks.
Form 2	SeGRA 3	SeGMA 3	Proficient in Grade 1 - 6 subtasks, at least established in Grade 7, F1, and F2 subtasks.

“Grade Achieved” - Literacy

The following two tables compare the actual (enrolled) grade to the achieved grade in literacy, which is based on the proficiency level on subtasks identified as relevant in the previous table. Consistent with previous tables identifying the proficiency level of the sample on particular subtasks, these tables show again that many students are missing basic skills in literacy at all grade levels. These numbers add credibility to the fact that addressing weaknesses in performance on letter sound identification subtasks can lead to significant improvements in learning for students. Since this is a basic requirement for a basic “achieved grade”, the fact that so many students fail this subtask lead to most students not achieving a minimum standard grade requirement. This is even more pronounced in the sample of boys. However, this is consistent with findings in section 4.1, which highlights that boys tend to perform worse than their female counterparts in both literacy and numeracy assessments.

Table 4.16: *Distribution of Girls’ Achieved Literacy Grade Levels Versus Enrolled Grade*

	Enrolled Grade							
Achieved Grade	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Form 1**	**Form 2**	**OOS**
Does Not Meet Minimum Grade	98.1%	97.1%	97.5%	92.4%	93.7%	91.7%	89.3%	98.9%
Grade 1	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade 2	1.0%	2.9%	1.0%	4.0%	3.2%	4.4%	3.7%	0.5%
Grade 3	0.0%	0.0%	1.5%	1.0%	0.0%	0.4%	1.4%	0.0%
Grade 4	0.0%	0.0%	0.0%	2.5%	3.2%	2.2%	3.3%	0.5%
Grade 5	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.9%	0.0%

Grade 6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade 7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Form 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Form 2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 4.17: *Distribution of Boys' Achieved Literacy Grade Levels Versus Enrolled Grade*

	Enrolled Grade				
Achieved Grade	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**
Does Not Meet Minimum Grade	98.04%	100.00%	97.14%	100.00%	100.00%
Grade 1	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 2	1.96%	0.00%	2.86%	3.70%	0.00%
Grade 3	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 4	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 5	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 6	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 7	0.00%	0.00%	0.00%	0.00%	0.00%
Form 1	0.00%	0.00%	0.00%	0.00%	0.00%
Form 2	0.00%	0.00%	0.00%	0.00%	0.00%

"Grade Achieved" - Numeracy

The following two tables compare the actual (enrolled) grade to the achieved grade in numeracy, which is based on the proficiency level on subtasks identified as relevant to that student's grade (see the Table 4.1).

Consistent with previous tables identifying the proficiency level of the sample on particular subtasks, these tables show again that many students are missing basic skills in numeracy at all grade levels. However, these missing skills are not as pronounced as in the literacy subtasks, where many students are missing the most fundamental skills, preventing them from reaching the higher achieved grade statuses. However, the following tables highlight that both girls and boys are still lagging in their attainment of grade-relevant skills. For example, 59% of girls in grade 3 only have a grade 1 level of proficiency in numeracy skills. No grade 3 students meet the required proficiency levels required of their enrollment grade. This trend persists across all grade levels and all genders.

Table 4.18: *Distribution of Girls' Achieved Numeracy Grade Levels Versus Enrolled Grade*

	Enrolled Grade							
Achieved Grade	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Form 1**	**Form 2**	**OOS**
Does Not Meet Minimum Grade	16.7%	12.5%	4.6%	5.0%	2.8%	0.8%	3.2%	9.0%
Grade 1	60.3%	44.0%	50.7%	46.8%	26.6%	32.8%	36.5%	58.2%
Grade 2	23.0%	38.0%	35.5%	31.7%	28.4%	42.7%	29.4%	29.1%
Grade 3	0.0%	4.9%	8.6%	9.4%	6.4%	6.1%	7.1%	1.5%
Grade 4	0.0%	0.0%	0.0%	0.7%	0.0%	0.8%	0.0%	0.7%
Grade 5	0.0%	0.5%	0.7%	6.5%	35.8%	16.8%	22.2%	1.5%
Grade 6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade 7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Form 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Form 2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 19: *Distribution of Boys' Achieved Numeracy Grade Levels Versus Enrolled Grade*

	Enrolled Grade				
Achieved Grade	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**
Does Not Meet Minimum Grade	21.3%	11.4%	6.7%	0.0%	18.2%
Grade 1	66.0%	57.1%	46.7%	50.0%	54.6%
Grade 2	12.8%	28.6%	43.3%	31.3%	9.1%
Grade 3	0.0%	2.9%	3.3%	0.0%	0.0%
Grade 4	0.0%	0.0%	0.0%	6.3%	0.0%
Grade 5	0.0%	0.0%	0.0%	12.5%	18.2%
Grade 6	0.00%	0.00%	0.00%	0.00%	0.00%
Grade 7	0.00%	0.00%	0.00%	0.00%	0.00%
Form 1	0.00%	0.00%	0.00%	0.00%	0.00%
Form 2	0.00%	0.00%	0.00%	0.00%	0.00%

Benchmarking

Benchmarking was conducted for students in upper grades to allow for comparison with our sample at later points. The following table lists the EGRA and EGMA averages for those students, as well as sample sizes. These results simply show that there is room for improvement in the literacy and numeracy scores in the baseline sample, who are younger than these students were and had significantly lower test scores.

Table 20: *Learning Benchmarking*

Grade	Girls Sampled	Average Literacy Score	Average Numeracy Score
Form 3	71	58.7	76.1
Form 4	38	62.0	80.7
Form 5	15	62.6	79.4

4.2 Subgroup Analysis of Learning Outcomes

In section 3, this report identified characteristics and barriers that were particularly relevant in this sample. The following tables describe the average literacy and numeracy scores of girls experiencing these barriers or possessing these characteristics. The main indicators are also broken down by district in Annex 15.

Table 4.21: *Predictors of Learning Scores*

	Literacy		Numeracy	
Characteristics	Average score	Difference from mean	Average score	Difference from mean
Total Sample	**41.8**	**-**	**67.1**	**-**

Has a Disability	42.1	0.3**	66.6	-0.5**
- Visual	52.0	10.2	67.5	0.4
- Hearing	36.3	-5.5**	60.0	-7.1*
- Mobility	44.9	3.1	71.5	4.4*
- Cognitive	36.5	-5.3***	62.2	-4.9***
- Self-Care	47.0	5.2	64.4	-2.7
- Communication	45.7	3.9	70.6	3.5
Single Orphan	42.9	1.1	66.9	-0.2
Double Orphan	41.8	0.0	68.6	1.5
Lives without parents	41.6	-0.2**	66.3	-0.8
Doesn't speak language of instruction	44.5	2.7	68.8	1.7
Uneducated parent				
- Head of household	36.1	-5.7**	62.1	-5.0**
- Primary caregiver	36.6	-5.2***	61.8	-5.3**
Apostolic Household	40.1	-1.7***	66.3	-0.8**
Teacher often absent	39.3	-2.5***	64.9	-2.2***
High chore burden	40.8	-1.0	66.2	-0.9
Learner feels unsafe travelling to school	41.9	0.1**	67.8	0.7*
Insufficient seating at school	38.4	-3.4*	65.1	-2.0*
No water at school	39.5	-2.3	65.8	-1.3
Difficult for household to afford school	42.1	0.3	67.0	-0.1
Household unable to meet basic needs	40.8	-1.0***	66.1	-1.0**
Gone to sleep hungry for many days in past year	40.4	-1.4*	65.9	-1.2
Access to a bicycle	43.2	1.4	69.4	2.3*

The stars in the previous table indicate if there is a statistically significant difference between girls with and girls without each characteristics or barrier (*p < 0.1; **p < 0.05; *** p < 0.01). Statistically, the barriers or characteristics with the strongest impact on literacy and numeracy test scores are the presence of a disability (0.03 SD lower numeracy score - with cognitive and hearing disabilities having an even more substantial negative relationship with both literacy and numeracy outcomes), uneducated parents[9] (0.25 SD lower in both numeracy and literacy), teachers that are often absent, and insufficient water/ seating at schools. In addition coming from a household that finds it difficult to afford tuition or other basic needs is also associated with lower performance on learning assessments. Access to a bicycle is related to a 0.12 SD *higher* score in numeracy assessments. Section 3 already identified these as important features within the Baseline sample. These findings offer additional evidence for where project interventions should focus to see the largest impact. Having a teacher that is often absent, having insufficient infrastructure resources at schools, having uneducated parents, or having a disability are all common characteristics in the sample, and all have statistically significant effects on student performance in literacy and numeracy assessments.

[9] Recall from section 3 that fewer than 20% of youth had caregivers who had received absolutely no formal education. It is likely, then, that this is more an indication that the caregiver grew up under extremely difficult circumstances, which may then impact the children in their care in other ways.

The planned interventions may address some of these issues, but there is opportunity to see greater improvement in learning, transition, sustainability, and intermediate outcomes by focusing on these challenges specifically. Notice that having a high chore burden has no significant effect on a girl's performance on literacy or numeracy assessments, so focusing on this in the interventions may not lead to any noticeable effects on primary outcomes directly. However, in section 5, we find evidence that a high chore burden is a predictor for lower attendance.

Disability Analysis

The previous table shows that, although having *any* disability is associated with significantly lower test scores in both numeracy and literacy, only cognitive and hearing disabilities are the only disabilities to have a negative impact. Visual, self-care, and communication disabilities are not shown to have any significant impact on learning scores. While the project's Theory of Change does describe the importance of removing barriers for marginalized groups, it does not specify which groups or which barriers the project will attempt to resolve. The interventions are also not specifically designed to address the barriers faced by learners with disabilities. However, given the high representation of this subgroup and the relationship this characteristic has with learning outcomes, the project should at least consider making the interventions accommodating to learners with disabilities, or modifying the interventions to work with this group specifically.

Although the qualitative instruments used at the baseline evaluation points do not specifically ask about disabilities and the barriers these present or any accommodations the learners receive or require. Given the high number of learners with disabilities in the sample (refer to the descriptive statistics in section 3), additional questions should be added to these instruments in the midline and endline assessments so the mechanisms that relate disabilities to learning and transition outcomes can be better understood.

Regression Analysis

Using a standard multiple linear regression model, the following table highlights the relationships between some of the characteristics discussed earlier (at the school, household, or girl level) and the literacy and numeracy scores of in-school girls. Note that the above analysis merely considered the differences between averages of girls with or without a characteristic. This method does not control for the interaction or relationship between characteristics. The regression presented next controls for the relationship between characteristics to present the marginal effect of each characteristic on both literacy and numeracy outcomes. Together with the previous results, these findings present a more comprehensive view of the relationship between subgroup characteristics and learning outcomes.

Specifically, girls with a primary caregiver with less than at lower secondary school completed have significantly lower scores in both literacy and numeracy. Girls with a primary caregiver with no education completed at all have, on average, literacy scores that are 2.4% lower and numeracy scores that are 3.0% lower than girls whose primary caregiver had completed lower secondary school. Alternatively, having a primary caregiver who had attended university is associated with over 5% higher scores in numeracy assessments. Having two deceased parents, having a disability, or coming from a household which struggles to afford school fees or other basic needs is also associated with significantly lower grades. Scoring higher on self-reported measures of leadership abilities (according to the Youth Leadership Index questions - discussed further in section 5) is associated with better performance on both literacy and numeracy assessments. This suggests that interventions designed to improve girls' sense of agency or improve their leadership abilities may improve performance in learning outcomes as well, allowing the

project to see improvement on both primary learning and intermediate outcomes. This is consistent with the project's Theory of Change.

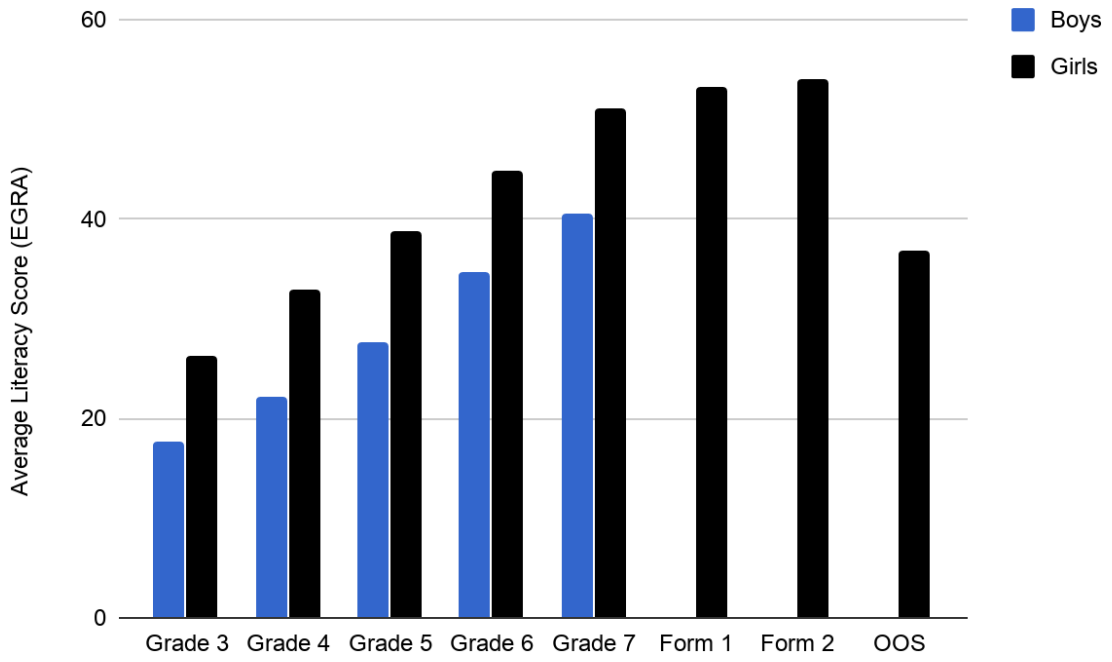
Table 4.22: *In School Girls' Literacy and Numeracy Scores (Regression Results)*

Regressor	Regression 1: Literacy Score	Regression 2: Numeracy Score
School Characteristics		
Intervention Group	20.50***	7.710
Drinkable Water	-0.96	-0.80
Sufficient Seating	1.86	1.62
Girl Feels Unsafe Travelling to School	-1.53*	-0.809
Teacher Frequently Absent	-0.264	-0.98
Girl Characteristics		
Access to a Bicycle	0.79	1.92*
Disability	-1.91	-2.01*
Speaks Language of Instruction	1.22	1.14
Primary Caregiver Education Level		
PCG - None	-3.00***	-2.42**
PCG - Primary	-2.70***	-1.25
PCG - Upper Secondary	2.31*	2.97**
PCG - University	2.92	4.95**
Household Characteristics		
No Parent in Household	-0.53	-1.08
Single Orphan	0.49	-0.63
Double Orphan	-4.69**	-3.21*
Basic Needs are Met	-1.02	0.09
Frequently Goes to Bed Hungry	0.10	0.60
Struggles to Afford Tuition	-1.96**	-1.31
High Chore Burden	0.03	-0.69
Grade Dummy Variables	Yes	Yes
District Dummy Variables	Yes	Yes
School Fixed Effects	Yes	Yes

Gender Differences in Literacy and Numeracy Skills

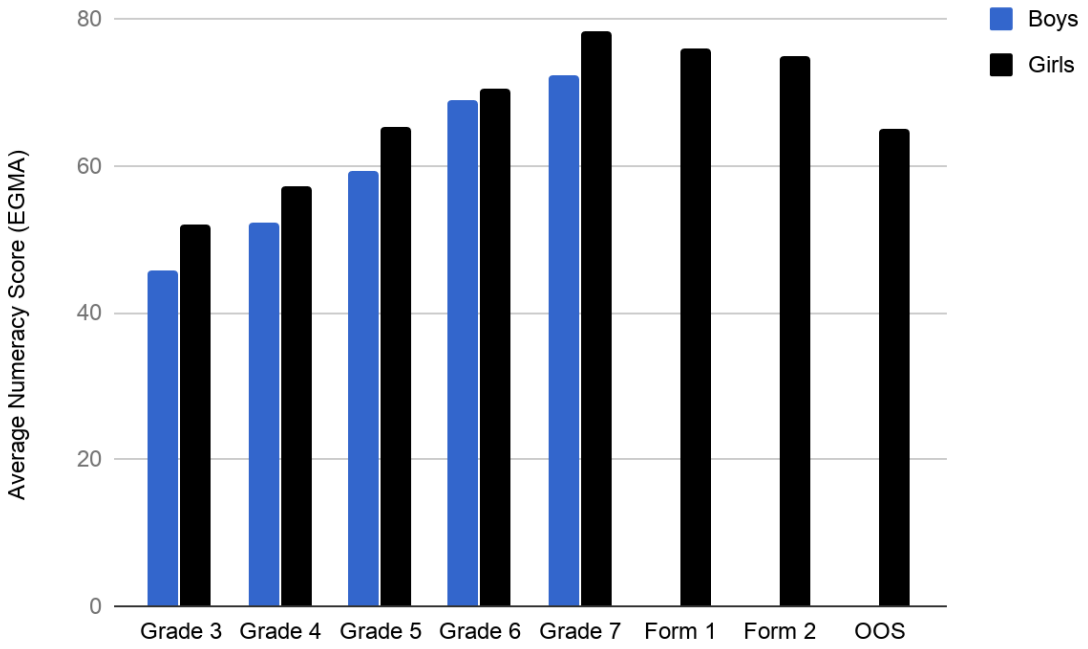
The following two figures show the difference in literacy and numeracy scores by gender. Girls in the sample consistently perform better than boys in the same grade on literacy and numeracy tests. This will be an important factor to consider when implementing the interventions, since girls are already performing better on learning assessments compared to their male counterparts. The IGATE-T project has identified learning as a primary objective for marginalized groups.

Figure 4.5: *Gender Differences in Literacy Outcomes*[10]



[10] The difference between girls' and boys' performance on literacy tests is statistically significant at the 1% significance level.

Figure 4.6: *Gender Differences in Numeracy Outcomes*[11]



The differences between boys and girls do not change significantly if we isolate the girls sample to only include girls who had a sibling (who may be more directly comparable to the boys in the Baseline sample since they come from the same households).

These findings are consistent with other measures of gender differences in academic performance in Zimbabwe. For example, the Zimbabwe School Examination Council reports that more females than males sit for comprehensive exams during Grade 7, and that females pass these exams at a consistently higher rate.[12]

Table 4.23: *Pass Rates During Grade 7 Comprehensive Exams, 2016*

	Female		Male	
Exam	**# Students**	**Pass Rate**	**# Students**	**Pass Rate**
Mathematics	167,214	59.3%	161,939	53.6%
English	167,110	60.9%	161,769	51.8%

Source: Zimbabwe School Examination Council 2016 Grade 7 Results Analysis

We find that similar trends hold specifically within the rural locations in which the IGATE program operates, and that they hold more broadly across grades.

[11] The difference between girls' and boys' performance on numeracy tests is statistically significant at the 1% significance level.

[12] Females outperforming males on the assessments is not new for Zimbabwe. In 2010, prior to the GEC and IGATE interventions, females passed all four of their comprehensive exams at a combined rate of 27.4%, while males did so at a rate of 22.6%. The female advantaged has persisted in every year of the IGATE intervention. See http://www.zimsec.co.zw/.

The most important differences in male and female access to education in Zimbabwe appear to involve barriers to completing school. Using available data on Zimbabwe as a whole (rather than only our sample locations), the following table compares the portion of youth that are OOS by gender at both primary and secondary school ages. It also shows the portion of youth who fail to complete primary school.

Table 4.24: *OOS Comparison by Gender*

	OOS rate ages 6-12 (primary age)	Do not finish primary school	OOS rate ages 13-18 (secondary ages)
Males	7%	15%	37%
Females	6%	19%	45%

Source: EDPC National Education Profile for Zimbabwe, 2014 update based on data from the USAID Demographic and Health Survey, and the UNESCO Institute for Statistics.

Note that this separation of primary and secondary age girls is consistent with the comparison grade used in the outcomes spreadsheet, where grade 6 girls were used as the comparison grade for the OOS girls. This comparable grade decision is specific to the context of Zimbabwe and is consistent with the sampling protocols, which specify that all OOS girls must have completed grade 6 to be included in the sample. This cutoff was selected because after grade 6 is when girls in Zimbabwe typically drop out of formal education, which makes grade 6 a natural comparison grade for OOS girls. The fact that they have similar grades to a grade 5 student may be related to the fact that girls who weren't performing well by the end of grade 6 may have been more likely to fail to transition to grade 7.

Qualitative Check In: Learning Outcomes

When teachers and head teachers were asked to reflect on the performance of students on learning assessments, and the obstacles to them performing well, many teachers reported that their female students tend to do better, particularly at the younger grades. This corroborates the quantitative findings, which suggest that girls were outperforming boys in numeracy and literacy, noting we only have data on boys up to grade 7. However, some teachers still held traditional beliefs about the strengths and weaknesses of each gender and are under the impression that some households maintain these beliefs as well, which may be a barrier to girls' education. In general, the biggest obstacles appear to be that resource barriers, difficult commutes, and commitment to send girls to school regularly past grade 7 (either because families have chores or obligations they need the girls home for, or they do not have enough resources to cover girls' school fees).

In their words:

In response to the question *"Do girls perform less well than boys on maths and reading while enrolled in school? What is the reason for this?"*, typical responses included:

- *"Girls perform better at lower grades but at higher grades to secondary their performance decreases. I think at secondary that's when girls are most vulnerable to distractions."* -Head teacher in Chivi
- *"Girls perform better in reading and boys perform better in Maths because they are well logical and easy to understand simple concepts"*

In response to the question *"What are the biggest challenges to improving the quality of education for both girls and boys in your district?"*, typical responses included:

- *"Lack of teaching materials like textbooks. There are few classroom blocks. ECD students learn from the staffroom. There is need for more intervention from government and education stakeholders."* -Head Teacher in Chivi
- *"Shortage of resources to use, then absenteeism can lead to child to refuse to come to school if the child is being absent for a very long time she will end up quitting."* - Head Teacher in Insiza
- *"The biggest challenge is resources [...] we do not have enough resources to improve the girls and boys education for example the books that we were given by the UNICEF are now worn out for example the first quarter of the book is not there and the back is not there so when teaching you use the middle part and it's a problem."* - Head Teacher in Mberengwa
- *"Shortage of resources to use, then absenteeism can lead to child to refuse to come to school if the child is being absent for a very long time she will end up quitting."* - Head Teacher in Insiza

In response to the question *"What are the biggest challenges to improving the quality of education, for both girls and boys, in your district?"*, typical responses included:

- *"we lack reading materials especially at this school am not sure with other school maybe they are better"* - Teacher in Mangwe
- *"The challenges that we have is that most of the parents have to be educated that the girls also should be allowed to go attend same education as their counterparts the boys and that they should support especial when having their menstrual period especial girls doing Grade six and seven"* - Teacher in Insiza

Regressing Key Indicators on School Level Characteristics

In our efforts to better understand what leads to success in our beneficiary population, me may want to know if there are school level differences that affect key variables. In order to better understand school level variables, we calculate variable averages for each sample point (74 schools) and then regress some of the major indicators (YLI, EGRA, EGMA) on school characteristics. In Table 4.19, we present the estimated parameters obtained when regressing each indicator on school level characteristics.

Table 4.25: *Regressing Key Indicators Aggregated to School Level*

Regressor:	Regression 1: EGMA	Regression 2: EGRA	Regression 3: YLI
Intercept	5.35***	2.18***	50.98***
% Apostolic	-1.28***	-1.02***	1.02
% who Speaks LOI	-0.28	-0.24	1.74
Math Training Binary	0.14	0.06	0.00
Literacy Training Binary	-0.02	-0.01	1.12
Gender Training Binary	-0.08	0.05	0.36
Average # of Students/Class	0.03**	0.02*	0.18*

Teacher Training

Interestingly, the estimated coefficients on binary variables indicating that teachers in each school have received training in teaching methods for a specific subjects all appear to be insignificant, and do not have all positive effect. This means that given our sample, we cannot observe a statistically significant benefit in our key indicators resulting from teacher training. This does not necessarily mean that teacher training is not useful, but does seem to suggest that teaching method trainings will not necessarily lead to a major improvement in test scores. Further inquiry may be necessary to determine the difference in the relevance and quality of the trainings teachers are receiving.

Apostolic

Schools see lower average EGRA and EGMA aggregates as the proportion of students from Apostolic households rise - a relationship that is significant at the 1% level. However, there is no significant relationship between the percentage of apostolic students and YLI aggregates. This relationship between apostolic students may require further investigation. At this point, we refrain from commenting on causality, given potential statistical issues like omitted variables and endogeneity.

Average # of Students/Class

The number of students per class appears to be positively correlated with our learning indicators, as well as the Youth Leadership Index, in a significant way. Again, causal inference is not recommended, given both class sizes and test scores may be correlated with a number of other school level characteristics, such as how remote our sampling point is, or whether our sampling point is in an economically advantaged area.

Learning Outcomes by School (Treatment and Control)

The figures below plot the average EGRA and EGMA scores in each school, sorted by treatment status. Although the distribution of EGMA scores is similar across treatment and control schools, there are noticeable differences in the EGRA score distribution across the treatment and control groups. A handful of the treatment schools have substantially lower average EGRA performance than any of the control schools. This suggest that there may be systematic differences in the ways literacy is taught at these schools, relative to other locations in the sample. Future analysis should work to understand the driving factors leading to lower baseline performance in these locations, and to consider whether these locations are more or less responsive to the intervention than other treatment locations. Robustness checks at midline and endline evaluation will ensure that these locations, for which there are no directly comparable control locations, are not driving the results regarding the overall impact of the program.

Figure 4.7: *Average EGRA Score by School*

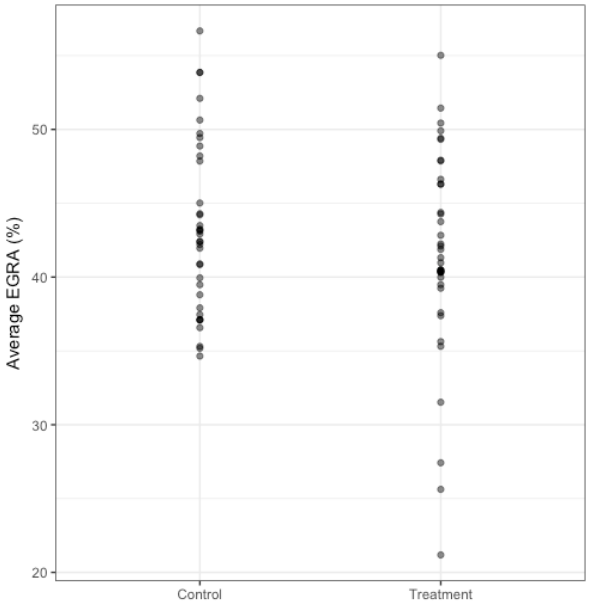
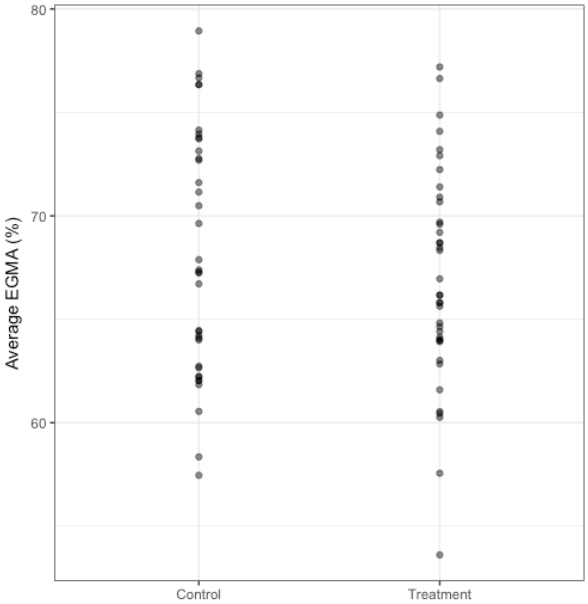


Figure 4.8: *Average EGMA Score by School*



4.3 Transition Outcome

One of the outcomes measured in IGATE-T is the transition rate of beneficiaries. Table 4.20 defines transition for different groups. In IGATE-T, transition for in school beneficiaries involves progressing to subsequent grades. For beneficiaries outside of school, transition involves returning to formal education, or a CBE centre.

***Table 4.26: Observable** Transition Pathways in IGATE-T*

Group	Baseline Point	Successful Transition	Unsuccessful Transition
Primary	Enrolled in Grade 3-7	In-school progression Moves into secondary school	Drops out of school Remains in same grade Moves into work, but is below legal age
Secondary	Enrolled in Form 1-5	In-school progression Enrols into technical & vocational education & training (TVET) Gainful employment, if 18 or older	Drops out of school Moves into employment, but is paid below minimum wage Moves into work, but is below 18
OOS	Dropped out	Re-enrol in appropriate grade level in basic education Enrolls in CBE Gainful employment, if 18 or older	Remains out of school Moves into work, but is below 18

In order to better understand the magnitude of selection effects influencing the transition rate in our sample, 10 communities were chosen for benchmarking. As part of the transition outcome benchmarking, enumerators conducted brief surveys with the heads of 240 treatment-community households in which girls between ages 8 and 17 resided. Respondents were asked whether the age and grades of any girls in the house, as well as employment status and last year in school for those not enrolled. In the following table, the enrollment status of benchmark participants of each age is shown. This is one way of comparing the our beneficiaries the general population. As we can see, 90% of our benchmark respondents are enrolled in school. We can compare the composition of our sample to this benchmark in order to see if the selection of the beneficiaries has yielded a sample that is representative of the communities from which it is drawn.

Table 4.27: *Benchmark Transition Pathways*

Age	Sample size (#)	Benchmark transition pathway				In School %
		Enrolled in School	Repeating a Grade	Enrolled in TVET course	Dropped out of school	
8	37	37	NA	NA	0	100.00
9	35	34	NA	NA	1	97.14
10	42	42	NA	NA	0	100.00
11	20	20	NA	NA	0	100.00
12	46	45	NA	NA	1	97.83
13	42	41	NA	NA	1	97.62
14	32	31	NA	NA	1	96.88
15	27	21	NA	NA	6	77.78
16	22	16	NA	NA	6	72.73
17	37	19	NA	NA	18	51.35
Total	340	306	NA	NA	34	90.00

The benchmarking survey that was delivered did not include a question about whether girls were repeating a grade. This is an oversight that makes estimating transition from the benchmarking sample more difficult. In accordance with the feedback received from the fund manager, the transition rates in table 4.21 were calculated as the ratio of girls enrolled in school to total sample size at each grade of the benchmark sample. Although this method is not without shortcomings, it provides a useful snapshot of the portion of the population to successfully progressed through school, as measured by continued enrolment, at each age. The values are more representative of aggregate transition up to a certain age, rather than an indicator of likely transition from one year to the next.

A more detailed look at the data allows us to infer which beneficiaries in the benchmarking sample have stayed on track (ie. transitioning properly) and those who have fallen behind, either by being held back or by dropping out. Girls who were within a defined grade range for each age, corresponding to the national expected educational progression were defined as on track. As well, girls who were either one year younger, or two years older than the expected age for their grade were defined as on track. Girls in grades below these ranges were defined as off track, and girls in grades above this range were assumed to be the result of data quality issues and/or outliers, and therefore were not included in the transition benchmarking estimates. Although employment pathways can count as positive transitions in some cases, IGATE-T defines the optimal transition pathway for all girls under 18 as remaining in school. In the following table, the benchmark number of girls in each age/grade is shown.

Table 4.28: *Benchmarked Sample Age and Grades*

	Grade										
Age	**3**	**4**	**5**	**6**	**7**	**Form 1**	**Form 2**	**Form 3**	**Form 4**	**Form 5**	**Form 6**
8	33	4	0	0	0	0	0	0	0	0	0
9	22	10	1	0	0	1	0	0	0	0	0
10	8	17	13	1	1	0	1	0	0	0	1
11	0	5	7	6	0	1	0	0	1	0	0
12	3	2	10	17	13	0	0	0	0	0	0
13	0	0	2	7	22	9	0	0	0	0	2
14	0	1	1	0	13	9	7	0	1	0	0
15	0	0	0	0	0	8	6	7	0	0	0
16	0	0	0	1	0	2	1	6	6	0	0
17	0	0	0	0	0	1	3	5	6	0	4
Total	**66**	**39**	**34**	**32**	**49**	**31**	**18**	**18**	**14**	**0**	**7**

Legend:	On Track
	Off Track
	Overachiever/ Questionable Reporting

In the following table, the percentage of individuals in each age group who are “on track” (within a relatively appropriate grade given their age) are presented.

Table 4.29: *Benchmarked Sample Age and Grades*

Age	“On Track”		% on Track (Transition Rate in Outcome Spreadsheet tab 2B.1BL)
	No	Yes	
8	0	37	100.00
9	1	33	97.06
10	8	32	80.00
11	5	14	73.68
12	16	30	65.22
13	9	31	77.50
14	15	17	53.13
15	14	13	48.15
16	10	12	54.55
17	27	10	27.03

Note that there is substantial drop off in the number of students who are still on track after the age of 13. This is consistent with discussions in focus groups and key informant interviews with community members. During these discussions, parents and educators repeatedly raised concerns about girls having difficulty staying in school after their menstrual cycles began because of poor information or limited access to hygiene products. These issues would begin to be a concern around the age at which we observe a substantial decrease in on-tack status. Secondary school fees can be considerably higher than primary school fees, and as many people brought up in both qualitative and quantitative assessments, paying school fees regularly is extremely difficult for many households.

Table 4.30: *IGATE-T Baseline Sample Age and Grades*

	Grade										
Age	**3**	**4**	**5**	**6**	**7**	**Form 1**	**Form 2**	**Form 3**	**Form 4**	**Form 5**	**Form 6**
8	143	6	0	0	0	0	0	-	-	-	-
9	241	124	8	0	0	0	0	-	-	-	-
10	76	247	164	8	1	0	1	-	-	-	-
11	23	61	167	116	10	1	0	-	-	-	-
12	5	27	84	213	123	15	0	-	-	-	-
13	1	7	22	111	198	140	15	-	-	-	-
14	1	2	7	24	100	181	117	-	-	-	-
15	0	0	1	8	37	96	209	-	-	-	-
16	1	0	0	3	10	24	93	-	-	-	-
17	1	0	0	0	5	4	28	-	-	-	-

Legend:	On Track
	Off Track
	Overachiever/ Questionable Reporting

The following table shows the sample girls and their “on track” transition status by age.

Table 4.31: *Baseline Sample Age and Grades*

Age	OOS	On Track (In School)		% on Track
		No	Yes	
8	0	0	149	100%
9	0	0	373	100%
10	0	76	420	85%
11	0	84	294	78%
12	4	116	349	74%
13	21	139	340	68%
14	43	107	295	66%
15	64	119	204	53%
16	67	112	0	0%
17	69	29	0	0%

As seen in the table above, the number of students that can be said to be “on track” decreases with age as students drop out, or fall behind their peers. Given the sampling process, none of our sample aged 16 or older can be said to be on track, since the highest grade sampled in our survey was form 2, which is intended for those aged 14. This is part of the reason the number of off track is significantly higher amongst older students than we found in the benchmarking.

We have calculated the transition rate for the sample in the same way described in the MEL framework. In this method of calculation, we attribute a negative transition outcome for learners whose primary caregivers told surveyors that their child was repeating a grade from the last year. For those in school, this will give us the number of those sampled failing to progress to subsequent stages of education. For those OOS, we can check how many of them report being enrolled in a community based education program. As shown in Annex 15, these progression rates vary across districts. Notice that the treatment group has a lower transition rate than the control group, primarily as a result of more out of school girls existing in the treatment sample, and not as a result of repetition rates which are mostly similar. This may be the result of the OOS sample being overestimated and being under represented in the control group.

Table 4.32a: *Cohort Transition Pathways - Control and Treatment Combined*

Age	Sample size (#)	Benchmark transition pathway				Transition Rate
		Enrolled in School	Repeating a Grade	Enrolled in CBE Course	Out of School	
8	132	127	5	0	0	96.53%
9	328	315	13	0	0	96.24%
10	451	427	23	0	1	94.77%
11	339	319	19	0	1	93.39%
12	426	399	23	0	4	93.57%
13	472	422	27	0	23	89.41%
14	455	395	11	0	49	87.35%
15	401	314	18	1	68	77.96%
16	187	107	6	2	72	57.92%
17	100	24	2	5	69	29.52%
Total	3291	2849	147	8	287	86.76%

Table 4.32b: *Cohort Transition Pathways - Control*

Age	Sample size (#)	Benchmark transition pathway				Transition Rate
		Enrolled in School	Repeating a Grade	Enrolled in CBE Course	Out of School	
8	71	68	3	0	0	95.77%
9	177	171	6	0	0	96.61%
10	242	230	11	0	1	95.04%
11	160	151	9	0	0	94.38%
12	214	201	12	0	1	93.93%
13	248	226	10	0	12	91.13%
14	225	204	4	0	17	90.67%
15	187	150	14	1	22	80.75%
16	93	60	5	1	27	65.59%
17	40	13	1	1	25	35.00%
Total	1657	1474	75	3	105	89.14%

Table 4.32c: *Cohort Transition Pathways - Treatment*

Age	Sample size (#)	Benchmark transition pathway				Transition Rate
		Enrolled in School	Repeating a Grade	Enrolled in CBE Course	Out of School	
8	61	59	2	0	0	96.72%
9	151	144	7	0	0	95.36%
10	209	197	12	0	0	94.26%
11	179	168	10	0	1	93.85%
12	212	198	11	0	3	93.40%
13	224	196	17	0	11	87.50%
14	230	191	7	0	32	83.04%
15	214	164	4	0	46	76.64%
16	94	47	1	1	45	51.06%
17	60	11	1	4	44	25.00%
Total	1634	1375	72	5	182	84.46%

Qualitative Check In: Transitioning to Secondary School

When asked, members of the sample communities acknowledge the unique challenges of transitioning to secondary school. Key reasons include :

- the inability to pay school fees
- the long distances that students must travel
- feeling unsafe travelling to secondary school
- teen pregnancy
- economic opportunities, such as gold panning

Poverty was a key theme. Many respondents alluded to the inability to pay school fees as a key reason why many students are unable to attend secondary school. Some proposed scholarships as a means of keeping students enrolled. At least one focus group spoke highly of a program in place where students who stayed enrolled in secondary school for a set amount of time could gain ownership of a bike that was lent to them.

One of the key challenge seems to be the distance learners must travel to attend school. Secondary schools are often significantly further away than primary schools secondary schools can be more than 10 km away in some cases. Often students will pay for transportation, but in many cases this is unaffordable, illustrating another challenge presented by poverty.

Almost all parental focus groups had members who believed that pregnancy was a key reason why girls in particular dropped out. Parents often spoke of girls misbehaving and spending time with boys upon reaching puberty, and pregnancy resulting. It seems as though there is not a particularly high number of mothers in the baseline sample, which may be a result of sampling from schools. If the parents are right about pregnancy being a key reason for attrition, it may be a good area for the program to focus on during its implementation.

In their words:

"Most of the boys just refuse to come to school while girls it's because of school fees, parents fail to pay their school fees so they end up dropping at grade 7." -Teacher in Insiza

"People in the area see illegal mining as a better option than schooling where they don't get money" - Father in Mberengwa

"I can explain the reasons why children do not transition to form one after completing grade seven. One of the reasons is perhaps the distance that children travel to the nearest secondary school. The nearest secondary school is ten kilometers away. Most children travel by car in the morning to school and in the evening after knocking off from school. They have to pay for transport. Maybe parents cannot afford to pay transport fee for their kids to and from school." - Father in Insiza

"The problem facing this community is money and the secondary are far. Grade 7s have written their exams but the thought of girls trekking all the way to Sangulube is terrifying. She will meet boys who will change her mind cause the distance is too much. If she is close by going to school and coming back early, I get to see her when she early and when she's late. How will you know is she doesn't reach school if the school is far?" - Mother in Mangwe

"If she gets pregnant I will punish her by telling her to stay home for at least 2 years to raise her child, I will tell her that she will go back to school if she has sorted herself out." - Mother in Insiza

"I think the home background contributes a lot sometimes, where they come from, they cannot be seeing you the value of education so even if she stops coming there won't be any problem, this is usually a family trend as you can sometimes see the whole family being of people who never completed or reached form 4 , so they won't value education." - Teacher in Insiza

"M: Do the attitudes of the parents present a challenge for girl's education, if so in what way?

R: And some of the parents can just say on grade 7 they don't have money for the child to proceed to secondary school so it becomes a challenge even if the child is very intelligent they just say they don't have money to the proceeding." -Teacher in Insiza

4.4 Transition Subgroup Analysis

What factors affect success with respect to transition? While it is difficult to comment on this until we can observe transition in our population, we can still look at how our backwards-looking transition measure varies by subgroup. The following table compares the transition estimates of certain subgroups to the transition estimates for the overall sample.

Table 4.33: *Transition Rates by Subgroup*

	Transition Estimate (% Successfully Transitioning)	
Sample Breakdown (Girls)	**In School**	**OOS**
Overall Mean	94.0%	3.4%
Learner		
Disabled	92.0%	10.6%
Married [1]	66.6%	20.0%
Family		
Orphan	93.4%	2.4%
Double orphan	96.8%	10.0%
No Parents in Household	94.9%	1.4%
Single Parent Household	92.3%	6.9%
Double Parent Household	94.5%	3.8%
Head of Household is Uneducated	83.4%	0.0%
Household Financial		
Household finds it difficult to afford food	82.7%	3.1%
Household finds it difficult to afford basic needs	94.3%	3.1%
District		
Chivi	93.7%	7.8%
Insiza	94.9%	2.3%

Mangwe	92.9%	1.6%
Mberengwa	95.2%	4.8%
Other		
Access to Bicycle	93.6%	0.0%

1 The sample size for married learners surveyed is only 7 girls, making any inference questionable at best

Amongst in-school girls, the subgroups that are the most different from average are those in households where the head is uneducated, and where it is difficult to afford food. This suggests that parents may wield significant influence over the education of their daughters, and that poverty is a key barrier that prevents students from completing their education.

The analysis shows a transition rate that is relatively high, especially for primary school participation. This is consistent with established trends for Zimbabwe, and is in part driven by Zimbabwe's policy of unimpeded progression, where students automatically advance in grade every year. This is supported by table 4.24 in the previous subsection which used the 2014 EDPC National Education Profile for Zimbabwe, based on USAID and UNESCO data, to show that only 6% of primary school aged girls are OOS, and in aggregate only 19% fail to complete primary school.

4.5 Cohort Tracking and Target Setting for the Transition Outcome

During baseline, the enumerators collected contact information on each subject that should help enable follow up with the same participants at midline. This includes information on an alternative contact who should know how to contact the subject if enumerators are not able to find them directly, or find them through schools or their households. Every effort will be made to track the same subjects at each of the evaluation points. Enumerators will be given special training emphasizing how important this is for the main empirical methodology, which relies on following individuals over time.

Even with these efforts, however, some attrition is expected from baseline to midline, with the greatest amount expected among subjects who leave school (and are therefore not about to be found through their schools). The baseline sample size is large enough to account for a reasonable level of attrition between baseline and midline (which the MEL estimated based on data form the original IGATE project). At midline, additional subjects will be added to the sample to account for this tradition and assure that the sample remains large enough for evaluation at endline. Details about the sampling methodology can be found in the MEL.

When evaluating the transition targets, it is important to be precise about how transition measures are defined. For discussion involving the transition outcomes, we define the transition measures in accordance with the MEL sampling framework, which defined successful transition as "an increase in the percentage of girls who have observably progressed through formal schooling, or equivalently, a decrease in the percentage who have been lost from the sample, who dropout of school, or who fail to advance in grades."

We use the community-based benchmarking survey to estimate the portion of girls at each age who are enrolled at or above the typical grade for their age. By comparing how this portion changes from one age to the next, we create an estimate of the typical positive transition rates that are observable in these communities. This is a very rough estimate of likely transition rates, as it is based on a small benchmarking survey where the sample size is too small to find any significant differences in transition rates across ages. However, it is the best estimate of likely observable transition rates (without accounting for attrition) that is possible from the benchmarking data.

The estimated attrition rates come from the MEL, where they were originally determined using data from the first IGATE program. The following table combines the benchmarking data estimates for continued progression and the MEL estimates of attrition rates to develop estimates of the expected transition rates. Estimated transition rates for the first definition of transition are given in the last column. Estimated transition rates for the second definition are given by the middle column (prior to incorporating attrition into the estimates).

Table 4.34: *Estimated positive progression rates*

Age	Benchmarking Share on Track	Share of on-track this year who will be on-track next year	Estimated attrition before next year (from MEL)	Estimated positive transition rate with attrition
8	100%	97%	37%	61%
9	97%	82%	41%	48%
10	80%	92%	44%	52%
11	74%	86%	64%	31%
12	65%	119%	69%	37%
13	78%	69%	31%	48%
14	53%	91%	42%	53%
15	48%	113%	47%	60%
16	55%	50%	47%	27%
17	27%	--	--	--
Wt. Avg.		91%		47%

We calculate weighted averages of the estimated transition rates, accounting for the share of the baseline sample by each age. The average estimated one-year transition rates are 47% given the definition of transition which accounts for attrition rates.

The following table gives the target transition measures based on the GEC guidelines given our first definition of transition. The following table uses the first definition of transition, the one that was proposed by the MEL sampling framework which includes attrition as an indicator of failed transition.

Table 4.35: *Target Setting, when transition measures include attrition (definition 1)*

	Midline	Endline
Target Generated by the Outcome Spreadsheet	8%-points	10%-points
Alternative Target Proposed by the Project	0%--points	10%-points

The GEC target is to achieve a 10 percentage point increase in transition rates (given the first definition) by midline and again by endline.

In our opinion, achieving a 10 percentage point increase in transition rates between baseline and midline will be will not be possible. The window of time between the two sample points is not long enough to successfully implement the program and offer enough exposure to the program to have such a large effect on transition outcomes. Achieving such an impact prior to endline is more reasonable, given the longer expected window between the midline and endline sample points, and the fact that the program is expected to be operating during the entire duration of that period (having already been implemented prior to midline).

It is our recommendation that the program not be expected to achieve a 10 percentage point increase in transition outcomes by the midline evaluation point. Rather, the baseline-to-midline stage of the project should be seen as the period to get the interventions rolled out as broadly as possible, so that the program can have the greatest possible impact on individual performance and transition rates during the midline-to-endline stage. Because of this, we recommend setting a target of 0 percentage points for midline, implying that the program is deemed to be on-track to achieving its objectives as long as the impact is not negative.

We highlight one concern with setting a formal transition target below 10 percentage points: the sample sizes chosen in the MEL sampling framework and implemented at baseline are not large enough to measure a smaller percentage point change. For example, targeting a 5 percentage point increase in transition rates would require an initial sample size of more than three times the size of our sample to maintain the same level of power as an analysis involving a 10 percentage point change.

The primary transition measure likely underestimates positive transition rates, as it treats anyone who is lost from the sample as failed transition even though some of the lost sample may have moved to a new location but continue to progress through formal schooling or may simply have not been found by the enumerators despite having transitioned positively. An alternative definition of transition would define positive transition rates as the share of subjects who have successfully progressed through formal education conditional on being observed across time. This second definition ignores attrition, effectively assuming that the those who are lost from the sample are no more or less likely to leave school than those who remain in the sample over time. At future evaluation stages, we plan to incorporate both transition definitions into the analysis.[13]

[13] Under the alternative definition of transition, the calculations for transition targets are more problematic because the estimated benchmarking transition rate not accounting for attrition is already 91%, making it impossible to achieve a consecutive changes from the GEC provided Outcome Spreadsheet which generates a target for improvement by the midline and endline analyses of 5 and 7 percentage points, respectively. Even individually, the targets are infeasible as a 7 percentage point improvement in transition represents more than a 70% decrease in the number of students who fail to transition. As such, a 2 percentage point improvement by endline would be a more reasonable target, as it is consistent with more than a 20% decrease failed transition (the same percentage decrease in failed transition if we were

Overall, given these concerns, it is our recommendation that the first definition of transition, the one described in the MEL, be used in the evaluation as the primary transition measure. However, caution should be used in interpreting the results, recognizing how the measure interacts with the level of attrition in the sample. Care must be taken at midline and endline sample points to apply the same time and energy to find subjects across both intervention and control locations to minimize attrition.

targeting a 10 percentage point increase in transition but starting from a 50% transition benchmark). However, sample sizes are not large enough to have enough statistical power to assess changes of this magnitude.

4.6 Sustainability Outcome

GEC-T defines a sustainable project as one that "can demonstrate that the changes it has brought about which increase learning and transition through education cycles are sustainable."

Using the sustainability scorecard developed for GEC-T (see Annex 13 for the complete scorecard), this evaluation can assess the sustainability of the outcomes defined in the project logframe. The following table summarizes the indicators for these outcomes, each indicator's sustainability score, and the overall project's sustainability score.

Table 4.36: *Sustainability Indicators*

	Description	Level	Value	Support
Indicator 1:	Community and school child protection committees working together to address child protection issues and practices	Community	2	Community Leader interviews, CPC interviews, PCG surveys, Head Teacher survey
Indicator 2:	Communities advocating for investment in girls education	Community	3	Community Leader interviews, CPC interviews, PCG surveys, Head Teacher survey
Indicator 3:	Schools encouraging and prioritising child focused teaching methodologies	School	2	Classroom observations, teacher and school head interviews, and KIIs with head teachers
Indicator 4:	School heads promoting teacher peer learning to improve their teaching practices	School	1	Classroom observations, teacher and school head interviews, and KIIs with head teachers
Indicator 5:	Schools utilising resources on teacher professional development.	School	2	Teacher and school head interviews, and KIIs with head teachers
Indicator 6:	MoPSE officials (district, provincial and national) endorse the integration of leadership club activities in school calendars	System	1	KIIs with provincial education directors and district superintendents
Indicator 7:	Districts utilising resources on teacher professional development.	System	2	Teacher and school head interviews, and KIIs with head teachers
Average by Level	**Community**			**2.5**
	School			**1.7**
	System			**1.5**

Overall Sustainability Score	**1.8**

Indicator 1: Community and school child protection committees working together to address child protection issues and practices

The primary data source for this indicator is the community survey, along with the FGDs and KiIIs. Since the community survey will not be rolled out in the field until midline, this analysis focuses on the relevant FGDs and the KIIs, using quantitative findings to support the qualitative data. In interviews with the CPC members, members noted that they believe that they were making progress in their communities, but that there was still work to do and that they faced opposition from some parents. Some reported that the CPCs could benefit from more support and training and support to improve their effectiveness. It seems like the project is impacting the ways CPCs work with the community to deal with abuse cases, although there is more work to do and there is not necessarily evidence that the efforts will be sustained without the project. For these reasons, we gave this indicator a score of 2. From the quantitative data, we see that child protective committees (CPCs) are common in the schools in our sample. CPCs have been implemented in 100% of treatment schools and 91.5% of control schools, according to interviews with School headmasters. Despite their existence, their use varies. 45% of treatment schools noted an abuse case reported in the past 6 months as opposed to 26% of control schools, indicating that the CPCs in IGATE communities might have better visibility in their communities. However, when looking at the follow up, only 27% of treatment schools had referred an abuse case to authorities. Yet compared to 10.3% reporting rate, control schools fared significantly worse, indicating that IGATE districts might have already encouraged changes in how girls are supported.

In their words:

"We have guiding and counselling programmes that we do with these children,we advice them to be free to talk to us if they have any problems, some fail to say out their problems but we have made it a mandate that we make follow ups for those who least attend,who come late,who have concentration problems and other issues that we feel have a hidden issues." - CPC Member, Mberengwa

"We are trying our best, though we have some resistance from some parents, but most of them are coming around." -CPC Member, Mangwe

"We have a challenge with parents that are not cooperative when it comes to children issues, we have had some parents that we have called to come here so that we talk to them about some issues that affect their children but instead they ignore and the problems that we would have noticed will continue unsolved.." -CPC Member, Mberengwa

"Lack of support and refresher trainings and no vigilance in terms of tracking their progress are the main factors" -CPC Member

"The CPC`s in the wards are not that active and this therefore means there is a long way to go and a huge task to do to make sure that children are prioritised" -CPC Member, Mangwe

"The committee should have more training on handling abuse cases. There is need for community meetings doing rights awareness" -CPC Member, Chivi

Indicator 2: Communities advocating for investment and enabling environment for girls education

This indicator is also based on the community survey (not available until midline), and FGDs and KIIs. In interviews with DSIs, community leaders, CPC members, and parents we saw enthusiasm for enabling girls education, but relatively little evidence in the way of specific action plans. There is also a relatively consistent pattern of leaders mentioning that "some" people still hold traditional views when it comes to girls' education, suggesting that not all community members are willing to invest in supportive environments for girls' learning. Many community leaders also report willingness of community member s to support initiatives to build new schools or infrastructure for education, however, in all districts financial constraints are repeatedly reported as a barrier preventing this from happening. This is exemplified in some of the following quotes from the qualitative data:

- *"The challenges which we face the improvement of girl and boy education is centered mainly on the community itself if the communities change it will help us on the learners behavior of both the girl and the boy"* - DSI in Mberengwa
- *"the community leaders are now in support of girl child education it's now different from the past"* - DSI in Mberengwa
- *"school children, they don't like school that much. They will be interested in gold panning and many other things. Even though parents strive for their children to learn, its other challenge which we are encouraging learners to attend to school but other children always hide and do not attend school. It is one of the challenges we are facing."* - Community leader in Mberengwa
- *"Previously yes [attitudes of parents] was really presenting a challenge to the education for girls. But now that everyone is open then they have- they are showing a positive attitude towards the education of girls so we cannot really say."* - DSI in Insiza
- *"Well the communities are being made aware on why they should educate the girl child like they do the boy child so we have communities being made aware through campaigns in schools."* - DSI in Chivi

This is consistent with findings from the quantitative data, where we find that communities members that we talked to are almost universally supportive of girls' education, at least when they are on the record. 93.7 % of primary caregivers told us that they agree that a girl is just as likely to use her education as a boy. 98.7% told us that hey agreed that investing in girls' education was a good investment, even when resources are scarce. It appears as though community members want to support girls' education, at least in practice. Schools are also attempting to create a supportive environment for girls' education as well. 79% of treatment schools had programs in place to support marginalized girls education. Less than half (37%) of control schools said the same according to headmasters.

Based on the Sustainability Scorecard, we felt that this indicator deserved a 3, as it had reached a critical mass, the standard described in the scorecard.

Indicator 3: Schools encouraging and prioritising child focused teaching methodologies

According to the project logframe, this indicator is intended to report on whether "school authorities show positive commitment for learner-centred teaching as per the teacher development training", using school surveys and KIIs with stakeholders as the primary source of data. The following two tables report on quantitative indicators which report on how aware stakeholders are of learner-centred teaching methods,

and how well they implement these techniques in practice. When triangulated against the qualitative sources, such as the head teacher survey and the KIIs with the DSI, we find that although a critical mass of teachers report awareness of learner-based teaching methods, a much smaller proportion of these teachers actually implement these practices in lessons. Furthermore, there is a low proportion of schools which have received training on child-focused or gender-based teaching methods specifically. Together these findings suggest there is not sufficient evidence that a “critical mass” of stakeholders have implemented these practices so the baseline measure of this sustainability indicator is 2.

The following table includes column to specify whether the differences between the intervention and control groups are statistically significant (*p < 0.1; **p < 0.05; ***p < 0.01).

Table 4.37: *Indicator 3 - Quantitative Measures*

	Indicator	Intervention Group	Control Group	Statisticall
	% of teachers aware of:			
	- Considering student's context	95.0%	98.6%	N
	- Considering student's age in use of teaching aids	95.1%	97.3%	N
and	- The four literacy skills	87.7%	92.0%	N
	% of teachers using techniques in lesson:			
	- Reflecting on students' context in math/ literacy	90.1%	89.3%	N
	- Checking student understanding by asking them to repeat in own words	64.2%	72.0%	N
	- Checking student understanding by switching to learner's mother tongue	53.1%	48.0%	
	% of schools with teachers trained in:			
	- Mathematics	77.8%	61.8%	N
rvey	- Literacy	86.1%	70.6%	N
	- Gender-based teaching methods	55.6%	44.1%	N

This table shows that while nearly all teachers are at least aware of student-centred teaching practices, they are not implementing these practices as consistently in practice. There is also room for improvement in how many schools receive training in gender-based teaching methods. This is consistent with interviews with head teachers, where every single head teacher reported that their teachers participated in at least some kind of training but less than half of all head teachers were able to discuss training that focused on student-centred teaching practices. This suggests this area in particular could provide substantial improvements in teaching quality, as there is not universal adoption or understanding of these teaching methods. ***In their own words:***

"[We received training] on using child friendly methods that take into consideration the issue of girls." - Head teacher in Mangwe

Indicator 4: School heads promoting teacher peer learning to improve their teaching practices

According to the project logframe, this indicator is intended to describe the "proportion of school leadership promoting sharing of experience to improve their teaching practise", and is also intended to come from school surveys and FGDs and KIIS with key stakeholders.. The following table reports on the number of school leaders reporting these kinds of activities. Currently, only half of head teachers report their teachers sharing experiences and learning to improve their teaching abilities or teaching methods. And even when they do hint at these types of practices, it appears from the qualitative analysis to only relate to sharing experiences from training activities, not teaching practices more broadly. This is exemplified in some of the quotes included below, which demonstrate the awareness of the importance of sharing knowledge between teachers. However, very few of the stakeholders interviewed were able to describe specific channels implemented to facilitate this kind of peer learning among teachers. According to the guidelines in the sustainability scorecard (see Annex 13 for the full scorecard), this indicator would receive a score of 1 since there is at least some demonstration of awareness of teacher peer learning and how it relates to teaching.

Table 4.39: *Indicator 4 - Qualitative Measure*

Source	Indicator	Measure
Head teacher KIIs	Number of head teachers reporting sharing experiences among teachers to improve teaching.	4 / 8

In their own words:

"We usually go [to training aimed at improving teacher effectiveness, and improving the treatment of girls within schools]: head teacher, teachers, matrons, and when we come back we hold our own workshops." - Head teacher in Mberengwa

"We appoint teachers for the training and they come and staff develop others ... It is very imperative to discuss teaching methods that will help us cover a lot of ground with different classes that we teach." - Head teacher in Mangwe

Indicator 5: Schools utilising resources on teacher professional development (School)

This indicator is also intended to come from the school surveys and the FGDs and KIIS with stakeholders. It is clear from the interviews with head teachers that some schools are devoting resources to teacher development, though there is certainly room for improvement. As evidenced in the two sample quotes included below, most head teachers interviewed made reference to sporadic training efforts made by the school, but there was no general sense of how these training efforts were intended to be improving teacher's abilities in the classroom. This suggests that improving teacher training practices and making sure teacher training is well planned within schools could lead to better teaching outcomes and, ultimately, learner outcomes.

This is supported by evidence shown in Table 4.37, which shows that a majority of teachers had received training in math and literacy, although there are still a number of schools where teachers had not received training and these figures give no indication of the quality of training received by teachers. Teachers have been trained in gender sensitive teaching methods at roughly half of the treatment and control schools

which indicates there is significant room for improvement. Because teachers are participating in professional development but it does not seem to be wide spread or methodical, we scored this indicator a 2.

"[Training] was done at college level and when we are deployed as teachers we are expected to be knowing how to deal with such issues" -Head Teacher, Mangwe

"We sometimes have staff development programs in the school where we focus on how we can make girls feel comfortable in the school, and sometimes give each other turns as teachers especially those who do IGATE to have time to teach them basic girly things." - Head Teacher

Indicator 6: MoPSE officials (district, provincial and national) endorse the integration of leadership club activities in school calendars

According to the project logframe, this indicator is intended to report on the "government's buy-in of leadership club activities as part of school planning". The source for this measure is intended to be Key Informant Interviews with Provincial Education Directors and District Superintendents. However, at the time this report was being written, interviews with the Provincial Education Directors had not yet been completed by enumerators because the PEDs were not available at all during the baseline data collection stage. Operational constraints have prevented them from being interviewed since. So the only data source is the District Superintendent Interviews. According to these interviews, most of the superintendents interviewed acknowledge the presence of clubs within their schools, however none of the four superintendents interviewed clearly endorsed these types of activities within their schools and not just within the community at large. According to the Sustainability Scorecard, this would justify a score of 1 for this indicator.

Indicator 7: Schools utilising resources on teacher professional development (System)

At the system level, the number of schools utilising resources on teacher professional development must rely on KIIs with stakeholders rather than the school survey. In interviews with District Superintendents, the interviewees were asked to reflect on the types of training that were used to develop teachers' skills within the district. Although all Superintendents were able to provide vague descriptions, these transcripts show that very few were able to give any plans for the future, or to provide critical answers about the relationships between the schools' performance, teaching quality, and training. For these reasons, this indicator can only get a score of 2 according to the sustainability scorecard.

5. Key Intermediate Outcome Findings

As described in section 2, the IGATE-T project evaluates four intermediate outcomes: teaching quality, attendance, life skills, and attitudes and perceptions. The indicators discussed in this section have all been described in the project's MEL framework, and will reference the indicators specified in the project's logframe. According to the project's theory of change, these have been identified as critical steps toward eliminating the barriers outlined in Section 1. Section 5.5 examines the differences between these indicators across subgroups, when applicable.

Note the stars in the tables in this sections indicate if there is a statistically significant difference between learners with and learners without the characteristics or barrier being discussed (*p < 0.1; **p < 0.05; *** p < 0.01).

5.1 Teaching Quality

The following tables consider different indicators of teaching quality from the headmaster's teacher survey, classroom observations, and the learner surveys. Note that for indicator IO 1.1 in the logframe, the source is the classroom observation tool, which includes 148 complete observations of classes across the sampled schools (see Annex 12 for details on how these classes were chosen by enumerators), and the head teacher survey, which includes records from 107 principals or school heads. This indicator attempts to measure the number of teachers using specific teaching practices or who have been trained in teaching methods for maths, literacy and reading, and gender-specific education, which are the methods identified as important by the project. IO 1.2 relies on data from focus group discussions with learners, and is intended to be a comparison to IO 1.1. Additional comparisons to qualitative data from the head teacher interviews and parents FGDs have also been included to provide a comprehensive view of the factors affecting teaching quality in the sample areas. The project has recently invested in a new tool that collects qualitative data on the teachers' own practices. Though it is not yet available, at the midline evaluation this may be a useful source of information to triangulate or supplement the findings that are derived from the data sources specified by the project logframe.

While the number of teachers receiving training in the control and intervention schools does vary, these differences are not statistically significant at any standard confidence level. Looking at the student surveys, these seem to support the findings in the other teaching quality indicators. Roughly 80% of teachers are reported to invite questions from students for example, and this is consistent with reports from students. However, other indicators suggest that students are inclined to give more favourable reports of teaching quality. For example, over 90% of students report their teachers uses resources in class to support their teaching. However, in-class observations only find evidence of this behaviour in teachers less than half of the time. This difference may suggest that either students are more inclined to report favourable teacher outcomes, or that the questions posed to either students and enumerators are not specific enough. The qualitative data appears to support the classroom observations finding that teaching quality is not as high as student responses would suggest according to the quantitative data. In interviews and focus groups, parents and students often cite teaching quality as an issue. This would suggest that student questions should be more precisely worded in subsequent attempts quantitative data collection.

IO Indicator 1.1 - Teaching Quality

Table 5.1: *IO Indicator 1.1 - Teaching Quality*

Indicator	Intervention Group	Control Group	Statistically Different
Classroom Observations[14]			
Invites responses from range of students	76.9%	90.5%	Yes**
Allows pair/ group work	59.0%	52.7%	No
Uses resources other than textbooks	46.2%	37.8%	No
Play numeracy/literacy games	11.5%	6.8%	No
Uses songs/ rhymes/ physical-response activities	12.8%	18.9%	No
Ensures most students participated	75.6%	74.3%	No
Teacher Received Training (Head teacher survey)			
Maths	77.8%	61.8%	No
Gender Sensitive Teaching Methods	55.6%	44.1%	No
Writing and Reading	86.1%	70.6%	No

The following two subtables disaggregate the classroom observations by teacher gender and by teacher region. These show that female teachers are less likely to invite responses from a range of students and ensure all students have participate during class. However, female teachers are more likely than their male counterparts to use supplementary resources and use games to help facilitate learning. While teachers in all regions are unlikely to use resources or teaching practices other than textbooks and traditional methods, other teaching practices vary significantly across different regions. For example, 70% of Chivi teachers are likely to encourage group work while only 15% of teachers in Mangwe are likely to do so. These findings suggest that working on specific sets of skills with certain subgroups of teachers would be very advantageous, since certain groups already do better at certain tasks.

[14] Additional findings from the classroom observation and teacher self-assessments can be found in Annex 18. Note that over 70% of teachers are aware of and are able to provide a concrete example of how they use each concept they were asked about in the teacher self assessment.

Table 5.1a: *IO Indicator 1.1 - Teaching Quality by Teacher Gender*

Indicator	Female Teacher	Male Teacher	Statistically Different
Classroom Observations[15]			
Invites responses from range of students	77.4%	89.7%	Yes*
Allows pair/ group work	51.2%	60.3%	No
Uses resources other than textbooks	48.8%	34.6%	Yes*
Play numeracy/literacy games	14.3%	3.9%	Yes**
Uses songs/ rhymes/ physical-response activities	15.5%	15.4%	No
Ensures most students participated	65.5%	79.5%	Yes*

Table 5.1b: *IO Indicator 1.1 - Teaching Quality by Region*

Indicator	Chivi	Insiza	Mangwe	Mberengwa
Classroom Observations[16]				
Invites responses from range of students	88.7%	95.0%	60.6%	90.3%
Allows pair/ group work	70.4%	50.0%	15.2%	71.0%
Uses resources other than textbooks	56.3%	40.0%	21.2%	35.5%
Play numeracy/literacy games	14.1%	5.0%	3.0%	9.7%
Uses songs/ rhymes/ physical-response activities	21.1%	10.0%	9.1%	16.1%
Ensures most students participated	87.3%	35.0%	63.6%	83.9%

IO Indicator 1.2 - Learners' Experiences of Teaching Quality

Learner groups were asked about the role they thought teachers had in their performance in school. Some (but certainly not all) students appear to be concerned that the teaching methods in class are not engaging, leading them to struggle with their studies. A more pressing issue seems to be that students report teachers frequently being absent from school, however, this is not a universally reported problem either. This is consistent with the quantitative results as well, as demonstrated in the accompanying table below and reports from parent FGDs. The qualitative results show that the teaching quality really varies across students, and that encouraging teachers to be more engaging and more regularly at school to teach would lead to positive outcomes for students.

In their words:

[15] Additional findings from the classroom observation and teacher self-assessments can be found in Annex 18. Note that over 70% of teachers are aware of and are able to provide a concrete example of how they use each concept they were asked about in the teacher self assessment.

[16] Additional findings from the classroom observation and teacher self-assessments can be found in Annex 18. Note that over 70% of teachers are aware of and are able to provide a concrete example of how they use each concept they were asked about in the teacher self assessment.

In response to the question: "Do your teachers always come to class and deliver lessons? What happens if they don't show up?"

- *"No they are not present"* - Several girls in Chivi
- *"Yes they are present "* - Girl in Chivi
- *"yes teachers come to class, at others times they don't because they won't be feeling well."* - Girl in Mberengwa
- *"They come all the times"* - Girl in Mangwe

In response to the question: "What activities do your teachers do in your classroom that are most helpful?"

- "*[the teacher] makes us feel sleepy when he is teaching and we all fall asleep during the lesson"* - Girl in Insiza
- *"we are all students and they teach us so that we all have a good future"* - Girl in Chivi
- *"they engage with us so that we may be able to understand on our problem areas and ask questions"* -Girl in Chivi

Table 5.2: *IO Indicator 1.2 - Learners' Experiences of Teaching Quality*

Indicator	Intervention Group	Control Group	Statistically Different
Teacher Practices (Student survey)			
Encourages Questions	79.0%	79.6%	No
Makes Suggestions For Study Improvements	93.2%	93.2%	No
Uses Teaching Resources	92.2%	93.9%	No
Directs Hard Questions to Boys and Girls Equally	95.3%	93.0%	Yes*
Uses Physical Punishments	8.6%	8.4%	No
Uses Examples in Lessons	91.4%	91.7%	No
Teacher Frequently Absent	26.6%	24.3%	No

Note that the learning assessments did not ask boys in the sample to reflect on teaching quality, so these indicators for IO 1.2 cannot be disaggregated by gender. However, there are no significant differences in the responses between girls with or without disabilities, or between girls in different districts. The following qualitative check in compares the results here to some of the evidence from FGDs with parent groups.

Qualitative Check In: Teaching Quality

Parent groups and head teachers were asked about the role they thought teachers had in learners performance and progression through school. Some (but certainly not all) parents appear to also be concerned that the teaching methods in class are not engaging, leading students to struggle with their studies. However, both parents and educators appear to recognize that the supplies and curriculum available to teachers are also preventing teachers from reaching their full potential in improving the education of the learners in the sample. Specifically, parents and teachers have repeatedly brought up concerns about outdated or insufficient textbooks available for learners. This is very well demonstrated by one quote from a head teacher KII below, which explicitly connects the poor resources and infrastructure to the head's perceptions that this impacts the ability of instructors to teach effectively. This is consistently a barrier made evident in the quantitative and qualitative data, in all regions. Many parents also consistently expressing concern about teachers coming from communities with a different first language, so they do not administer lessons in a language the students are familiar with.

In their words:

"Children love learning and passing, but because of the way they teach, it causes children to lack motivation" - Mother in Mangwe

"*Text books need to be bought and also new fashion and fabrics subjects, food and nutrition to be also introduced within the school curriculum"* - Mother in Mangwe

"They are good teachers but our fellow community members encourage children to go for panning hence withdraw their children from school ." - Mother in Mberengwa

"I think the school is trying, but as you can see we got low learning aids, even the exercise courses, there are textbooks only, the school is failing to collect enough levies." - Head teacher in Mangwe

"The area affects us or rather is affects me in that when am are teaching children should be sited comfortably with desks and benches, they need to be in their own class so that i the teacher can put charts for the children to read but we can not do that if we put charts you find them tomorrow torn by donkeys and some people so we do not have all that. We have what we call learning corners but with this environment we can not so all those these affect me as a teacher and make me not to do my work fully" Head teacher in Mberengwa

Responses to the question "What are [the teachers] doing well?": (Mothers in Chivi)

- *"Every day my child comes home with homework"*
- *"The are offering holiday lessons and these are helpful to our children especially the grade sevens"*
- *"The encouraged our children to have school uniform"*

Responses to the question "What could be improved [regarding teaching quality]?": (Mothers in Chivi)

- *"Our children need books"* - Mother in Chivi
- *"The way they teach and conduct lessons"* - Mother in Insiza
- *"Text books need to be bought and also new fashion and fabric subjects, food and nutrition to be also introduced within the school curriculum"* -Mother in Insiza

5.2 Attendance

The following table compares different measures for learner attendance. Although the project logframe only specifically identifies the measure of missed “3 or more days in the past 20 school days” as the appropriate measure, this analysis has used other measures of attendance from the spot checks and teacher surveys to triangulate the findings and determine if the measure is appropriate. The other sources specified by the logframe do not specifically answer the question posed for the indicator, but alternative measures are available to get an overall sense of attendance. Note the data for the spot checks includes 148 in-class observations that recorded the number and gender of students present in a class at a school the enumerators were visiting. See Annex 12 for additional details on how these classes were selected. The other data sources have been described in section 2 in more detail. The result of this analysis show that child attendance rates vary slightly depending on the measure used, however, child attendance is relatively high across all measures. Note that attendance measures are also relatively consistent across districts, as shown in the table in Annex 15.

IO Indicator 2.1 - Attendance

Table 5.3: *IO Indicator 2.1 - Attendance Measures*

Indicator	Intervention Group	Control Group	Statistically Different
Teacher Assessment			
Average days attended - current year	88.6%	92.8%	Yes***
Average days attended - last year	96.3%	96.7%	No
Spot Checks			
Girls Present	90.1%	90.6%	No
Boys Present	88.2%	87.4%	No
Girls’ Survey			
Missed 3 or more of last 20 days	13.6%	14.3%	No

IO Indicator 2.2 - Learners’ Views of What Influences Attendance

This indicator relies on focus groups with in-school girls to get a sense of what are the major reasons keeping the girls from attending school. Generally, girls report wanting to go to school, and report that their caregivers encourage them to attend regularly. This can be seen in dialogues like the two presented here:

Girl in Insiza

Enumerator: Do you usually come to school or you miss school?
Girl: I usually come to school.
Enumerator: What makes you come to school everyday?
Girl: My father tells me to come to school so that I do not fail.

Another Girl in Insiza

Enumerator: How many times do you come to school? Do you come often at school?
Girl: Yes I do come to school often.
Enumerator: What can prevent you from coming to school?
Girl: Sometimes I will be sick.
Enumerator *Besides sickness what else can prevent you from coming to school?*
Girl: Nothing.

However, some other discussions highlight that households these girls come from do not prioritize girls education as highly as boys, leading their parents to encourage them to stay home from school for chores or other reasons. For example, in response to the question *"Are there obstacles to attending or completing secondary school that other kids in your community may face?"* typical responses included:

- *"Most of our brothers and sisters think that school is not important"* - Girl in FGD in Mangwe
- *"Parents think that they is no need for girls to learn"* - Several girls in Chivi
- *"No"* - Several girls in Insiza

The most commonly cited reasons for not attending include distance to the school, difficult (bushy or swampy) routes to get to school, illness, chores and household obligations like taking care of family members. However, some of these factors, such as high chore burdens, do not appear to have a statistically significant relationship with attendance rates when we rely on quantitative data to measure the correlations between these two things. As shown in the last example, this is not a universal issue. Many girls reported no obstacles preventing them from regularly attending school, particularly in Insiza.

IO Indicator 2.3 - Attendance and BEEP

The baseline data for IGATE-T does not include any details that would allow the external evaluator to link the beneficiaries of BEEP to the girls in this sample. However, there are details about which girls have access to a bicycle. Looking at the differences in attendance across girls with or without bikes, we do not find significant differences. However, given access to a bike is not exogenous, this should not be considered to be a conclusive result and more work should be done at midline to connect the impacts of BEEP and IGATE-T more broadly.

Table 5.4: *IO Indicator 2.1 - Attendance Measures*

Indicator	Has Access to a Bicycle	Does not Have Access to a Bicycle	Statistically Different
Missed 3 or more of last 20 days	13.7%	14.1%	No

IO Indicator 2.4 - CBE Attendance

The community based education interventions had not started at the time this report was being written. This means that this indicator, which asks about the attendance of girls enrolled in CBE, cannot be measured at this stage.

IO Indicator 2.5 - Grade 7 Exam Completion

This indicator is designed to measure the number of girls who complete the grade 7 exams, given they were in enrolled in grade 7 at the beginning of the year. Since not enough time has passed to measure this

at the time of the baseline report, this also cannot be measured until the midline. However, we can use the recorded grades of the baseline sample (see section 3) to reflect on the number of students enrolled at the beginning of the baseline to compare this to the number of girls who completed the grade 7 exams when we collect the school surveys at midline.

5.3 Life Skills

This section reports on different baseline measures of learners' life skills and empowerment over education-related decisions that correspond to IO indicators 3.1 - 3.3. The first indicator from the log frame involves the Youth Leadership Index (YLI), which is a series of questions from the learner survey designed to assess girls' self-perceptions of their leadership abilities. Although there are no obvious differences between the intervention and control groups in their leadership scores, there are substantial differences in leadership abilities geographically (see Figure 5.3). Additional analysis in section 5.5 highlights that there are learners with cognitive disabilities have significantly lower leadership scores, providing further evidence that the role disabilities plays in the project's efficacy is an important consideration.

IO Indicator 3.1 - Youth Leadership Index

Table 5.5: *IO Indicator 3.1 - Youth Leadership Index*

Indicator	Intervention Group	Control Group	Statistically Different
Youth Leadership Index			
Overall YLI Score (range: 0 - 84)	55.9	55.9	No
Can Organize Others[1]	54.3%	53.8%	No
Wants to Be a Community Leader[1]	59.2%	58.1%	No

1. This count includes those who "agree" or "strongly agree" with these prompts.

Figure 5.1: *YLI Scores by Gender and Grade*

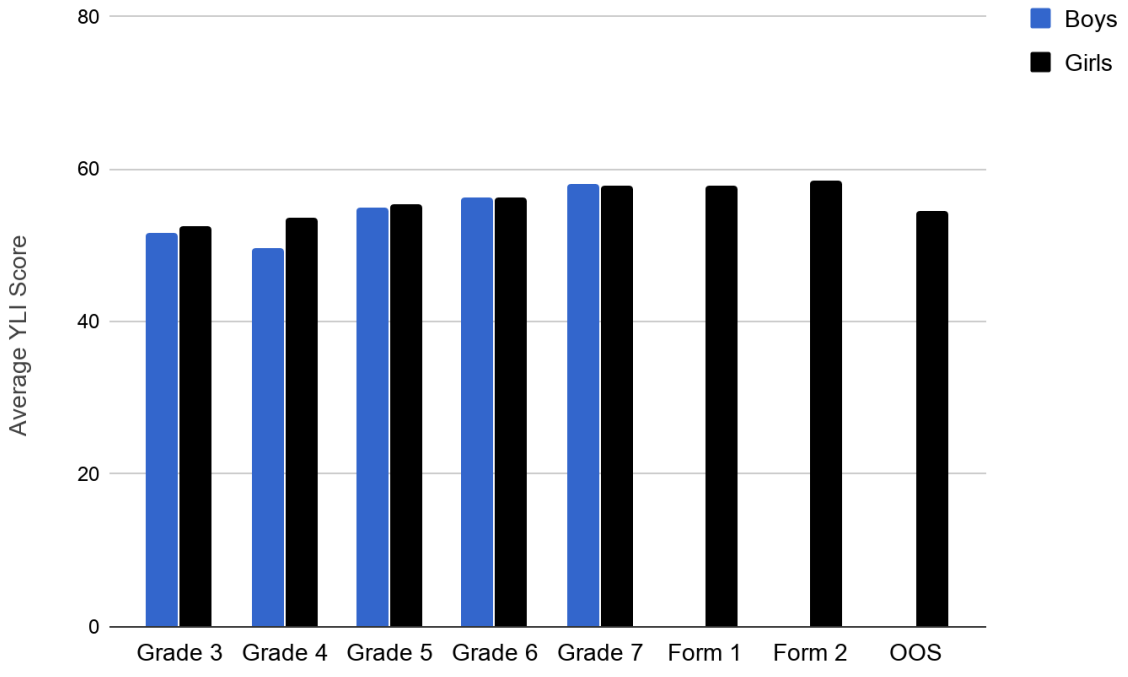
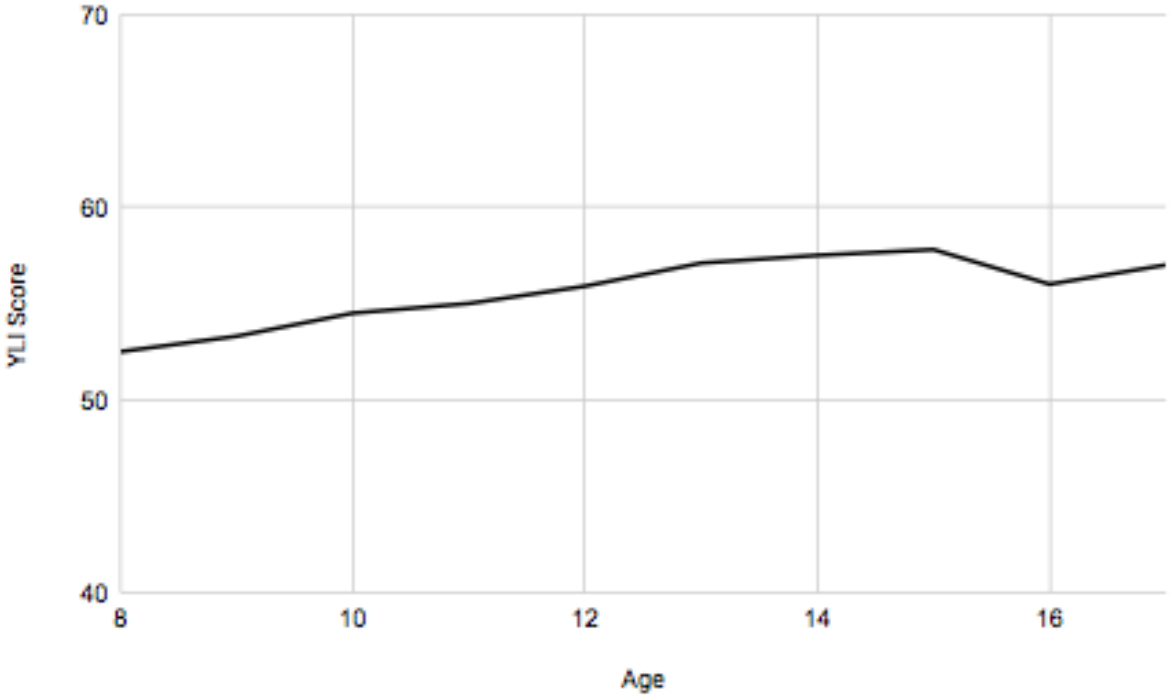


Figure 5.1a: *YLI Scores by Age (Girls Only)*



Note that, overall, boys have slightly lower scores (according to the YLI index) than girls do, but that this difference is not statistically different and is not consistent across grade levels. However, these gender differences are not statistically different at any standard confidence level. Younger girls also have slightly lower YLI scores than older girls. A similar pattern exists for boys. Annex 15, which disaggregates all of the main indicators by district also shows that there are very few differences in YLI scores across regions.

There are, however, statistically and intrinsically significant differences though on individual questions in the YLI questions. For example, on average girls receive 2.4 out of 4 on the question "I am interested in being a leader in my community" while boys receive 2.7 out of 4. This difference is statistically significant at the 1% level. This difference is consistent across all grade levels, as shown in figure 5.2. This directly relates to the program's project of change. This suggests that designing program interventions to address these differences have the potential to lead to improvements in learning and transition outcomes.

Along with this difference, the following table shows that boys and girls are significantly different in their attitudes towards trying new activities, their willingness to respond to questions, their willingness to be accountable for their decisions, and their willingness to report unfair treatment towards them. Annex 19 contains a summary of responses to each YLI question by gender.

Figure 5.2: *YLI Score - Wants to be a Community Leader - by Gender and Grade*

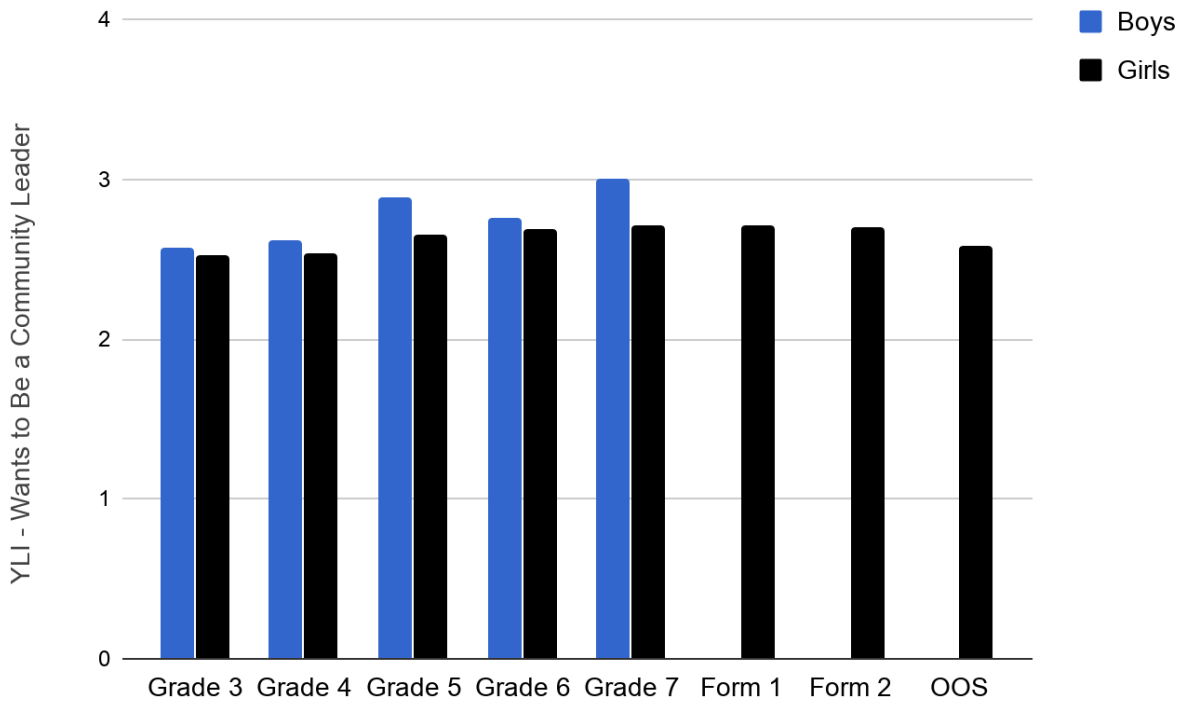
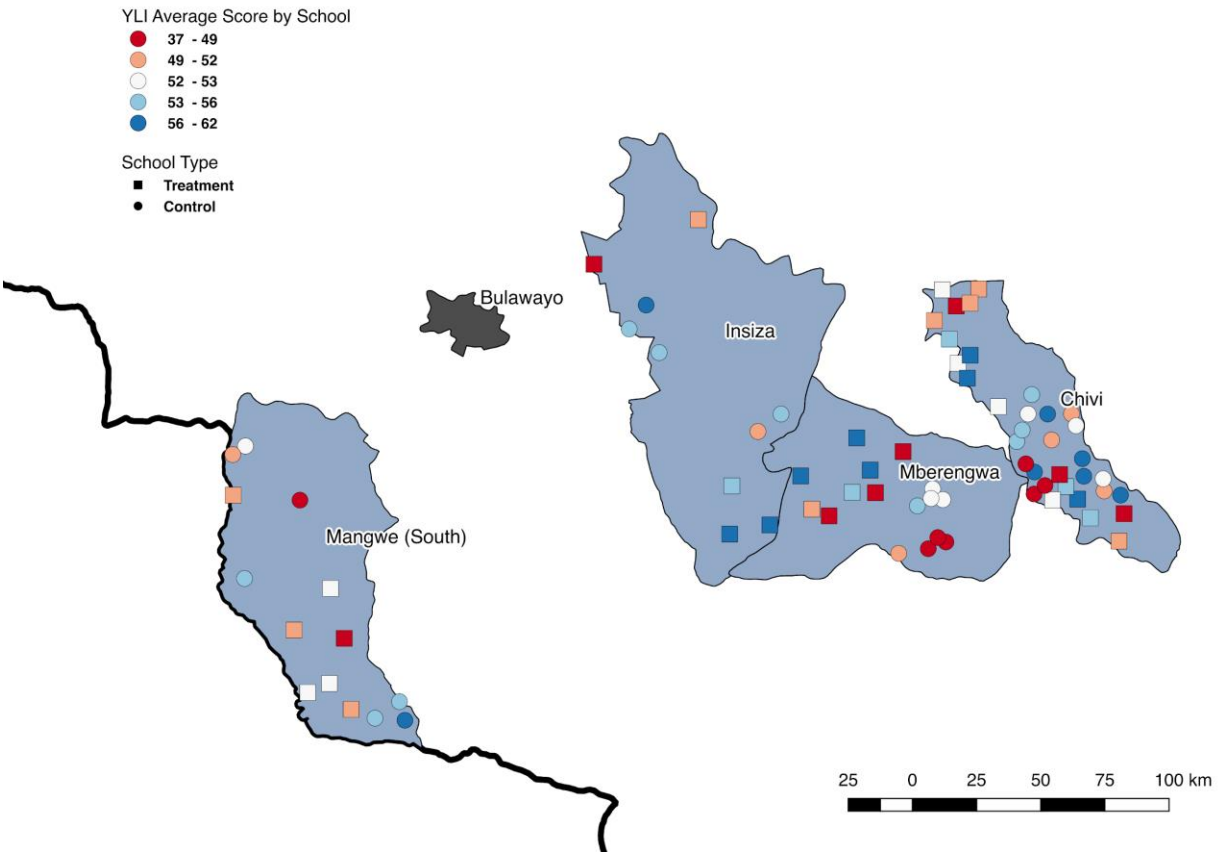

Boys
Girls
YLI - Wants to Be a Community Leader
4
3
2
1
0
Grade 3
Grade 4
Grade 5
Grade 6
Grade 7
Form 1
Form 2
OOS

Table 5.6: *Gender Differences Across Youth Leadership Index Questions*

Prompt	Average Score - Boys (/ 4)	Average Score - Girls (/ 4)	Statistically Different
Interested in Being a Community Leader	2.7	2.5	Yes***
Likes to Try New Activities	2.1	2.2	Yes***
Comfortable Responding to Questions	2.6	2.7	Yes***
Accepts Responsibility for Decisions	2.5	2.3	Yes**
Reports Unfair Treatment to an Adult	3.0	2.9	Yes*

Figure 5.3: *YLI Scores by School*



The other source of information for this indicator is the GEC Life Skills Index, which will be a compilation of questions about girls' interest in school and learning, as well as their perceptions of feeling in control of their educational and life outcomes.

Looking at the attachment from Annex 20, it is clear that the sample wants to do well in school. 97% of both the control and treatment groups report wanting to do well in school, and nearly 90% of both groups report feeling capable of staying focused on a goal despite things getting in their way. Although just over 15% of students report feeling nervous reading or doing math in front of others, the "learning to learn" indicators do

not appear to be the most relevant factors for this sample. This is consistent with the qualitative data, in which many girls report wanting to attend and excel at school, but cite other barriers such as school fees and household obligations as reasons for being unable to do so.

in terms of “learning for life” indicators, nearly all girls in both the control and treatment groups either above or under the age of 12 want to continue with their education and recognize the relationship between their current choices and future outcomes. This is also consistent with the qualitative data, which highlights that girls want to stay in school, and generally know the steps required to do so. However, roughly 30% of in-school girls report feeling lonely at school, with over 50% of out-of-school girls report feeling this way. Although this has not been a consistent theme anywhere in the qualitative data, this suggests additional questions about girls’ feelings of isolation at school could be incorporated into qualitative assessments at midline to get more contextual details about this. Roughly 25% of girls of all ages also indicate that their success on tests is due to luck. This suggests that many girls do not feel in control of their academic outcomes, and is consistent with the project’s theory of change. Again, this is not supported by evidence in the qualitative data, however, questions addressing this were not specifically asked either so they may be worth adding at midline.

The “agency” factors are the most relevant factors for this sample. According to the tables in the attachment in Annex 20, many girls do not have any say in their decisions about their major life events. For instance, roughly 50% of girls across all age groups report they do not have any input in the decision about whether they will attend school. Even fewer have any input into the decision about whether they will continue school after the current year. This is also consistent with qualitative data, where many girls and parents report the parents being the authority on these decisions. Although girls over 12 have more input into their decisions to get married and work after school, 26% and 19% of girls over 12 still report having no input into these decisions, respectively. This may be a reflection of the relatively young sample we have, but it may also be a signal that many girls still have absolutely no input into major life decisions, which may lead to a low sense of agency. These indicators align very well with what the project has set out to achieve according to the project’s theory of change as well. Based on this, the external evaluator would suggest that the “agency” and “learning for life” factors discussed here be included in the index developed by the FM.

IO Indicator 3.2 - Demonstration of Leadership Competencies

According to the project logframe, the only source of data for this indicator is intended to be focus group discussions with in-school girls. The FDG instruments used for the baseline evaluation do not specifically ask girls to reflect on their leadership competencies, and this should be added to the assessments at the midline and endline evaluation points to encourage girls to directly reflect on examples of when they demonstrated leadership qualities. However, teachers were asked about whether girls were demonstrating leadership in their classes, and to provide some examples. This is a valuable secondary source of data for examples of adolescent girls demonstrating their leadership competencies. Most expressed the belief that girls were just as capable leaders as the boys, and often more so, taking on roles such as prefect, or volunteering for chores, or to answer questions.

In the headmaster's words:

"M: In what ways do girls in your class demonstrate self-esteem or leadership?
H: Yes they participate in discussions such as group discussions or debate and they feel special when they are in leadership positions
M: Participation in discussions?
H: Girls are much more confident than boys and they participate more than boys
M: Voicing of opinions?
H: They also voice their opinions
M: Presentations?
H: Yes they also participate in those and they love presenting" - Head Teacher in Mangwe

"M: Can you provide me an example from the last day or two?

H: The girls conducted a drama presentation on the issue of HIV and sexual abuse where they were sensitising other children through a drama play and also did a speech afterwards on issues of abstinence and reporting cases such abuse to the relevant authorities" -Head Teacher in Mberengwa

"R: Yesterday there was a trip to Gwabhila, where some pupils in grade 4 had to perform so I got in the grade 6 class and said they are too young so I won't go, since some of you danced last year, who will look after these. They raised their hands and volunteered to go so they went on their own." -Head Teacher in Insiza

"Girls also take leadership positions like class monitor, group leader and also prefects. Their participation in class is 50:50 with boys. They are able to voice their opinions in debates and they are also active in drama and poetry." - Head Teacher in Chivi

Note the other source of data for this indicator, the girls club monitoring tool, is not available at the time of the baseline since these clubs have not started yet at the time this report was originally written. These data will be available come midline.

IO Indicator 3.3 - Empowerment Over Education Decisions

Indicator 3.3 attempts to measure how empowered girls feel over the decisions they make about their transition through education. This indicator is assessed quantitatively using questions posed to girls about who makes important decisions about their education, as well as qualitatively using the FGDs with in-school and OOS girls. The following table highlights the quantitative findings, which shows that nearly roughly half of all girls have some involvement in their decisions about education, and 80% of all girls have agency over their employment decisions. There are no significant differences across treatment and control groups for these indicators, however section 5.5 describes differences in these indicators across other subgroups.

Table 5.7: *IO Indicator 3.3 - Girls feel empowered*

Indicator	Intervention Group	Control Group	Statistically Different
Empowerment/ Autonomy			
Makes Decisions About School	52.9%	49.0%	No
Makes Decisions About Continuing School	50.4%	47.0%	No
Makes Decision About Transition to Employment	80.9%	80.8%	No

Qualitative Evidence

During focus group discussions with girls, the girls were not specifically asked about how empowered they feel to make choices about their education. More direct questions could help provide insights into this indicator at midline and endline evaluation points. However other questions about the opportunities and obstacles that surround their education and post-education options shed some light onto how empowered girls feel about their progression through education. For example, many girls in focus groups cite their families being unable to afford school fees as the primary reason they would not be able to continue with their education, which is a factor that is largely out of their control. For this reason, many girls specifically state that their caregivers make the decisions about their and their siblings enrolment decisions. For example:

"Yes I have a sister who wrote her 'O' levels in 2014 and is sitted at home, she did not find money to proceed with her school. … The decision to enrol is made by [my] grandmother." - Girl in Chivi

Other commonly cited reasons for why they would not be able to continue through their education include fear of abuse and loss of parents. These concerns suggest that the project's interventions around child protection and community engagement will be valuable in promoting a sense of empowerment in the project's beneficiaries. Added questions about what factors help them feel empowered about their education decisions would also be insightful for the project to get a sense of what works, as the questions currently focus almost entirely on obstacles.

5.4 Attitudes and Perceptions

IO Indicator 4.1 - Households Contributing to Post-Primary Education

This indicator relies on data from the household surveys, and the community investment tracker. Only data from the household surveys is available at the time of the baseline analysis. The following table shows that about 70% of households contribute to schools fees for secondary school girls, which is similar to the proportion of households contributing to school fees for girls of all grades. Although male headed household have slightly higher rates of school fee contributions these differences are not significant.

Table 5.8: *IO Indicator 4.1 - Household Contributing to Secondary School Fees*

Indicator	Intervention Group	Control Group	Statistically Different
Households Contributing to School Fees			
Secondary School Girls	70.7%	69.1%	No
- Female Head of Household	68.2%	63.6%	No
- Male Head of Household	73.2%	68.3%	No
All Girls	68.8%	69.9%	No
- Female Head of Household	67.8%	69.3%	No
- Male Head of Household	69.2%	71.5%	No

There are also slight variations across regions. As shown in the table in Annex 15, Chivi has 74% of household contributing to school fees, while in Mberengwa 68% of household contribute to school fees. However, these regional differences are not statistically significant.

IO Indicator 4.2 - Religious and Traditional Leaders' Views on Girls Education

This indicator is intended to measure the change in attitudes that religious or traditional leaders hold about the aspirations for girls in their community on education. The logframe specifies that this should rely on data from interviews with religious leaders as well as FGDs with community members. However, the FGDs should be adapted at midline and endline to make sure this is addressed specifically within these discussions as they are currently not prompted to discuss the attitudes and influence of religious leaders specifically. Within the KIIs, religious leaders interviewed appear to be open to working with the IGATE-T project, and are aware of the challenges facing girls in staying in school. For example, one religious leader in Mberengwa said:

"We have those whom I have said are called mentors or advisors (Mai murayi) who are like us elders those are the ones who advise girls, at the church I have introduced to them this IGATE programme, I told them IGATE staff shall come to help you with your work as mentors to girls, so that these girls which want to go to school can go to school, we have spread the gospel of IGATE at church isn't it?"

Although limited, these discussions are encouraging as they suggest commitment from religious leaders in the project's areas. These interviews highlight how involved the religious community is with marginalized girls. For example, in response to questions about what kind of guidance the church offers girls in the community, one leader in Mberengwa stated:

"Other topics that we address are for those who had early marriages, we encourage them to go back to school whether they are married whilst they have 18 years we teach them to keep their homes well as a mother and encourage them to go to school"

Another leader in Mangwe, when asked how the church supports girls to go to school, made reference to the network they have access to to support girls financially, which from earlier analyses we know is a major barrier to continuing education:

"We have one member of the church who travels around. She was here this morning. She travels around with others to places like Hobodo. They travel to assist where there is a problem like death. If there is death we collect finances and give them so that they assist."

This emphasizes the influence the religious community has in these areas and highlights importance of engaging religious leaders to make change sustainable. This lends support to IGATE-T approach of engaging these leaders in the project. Note that for this indicator there are no gender-related details available in the transcripts, and it is difficult to conclude on any overall regional differences based on the narrative.

IO Indicator 4.3 - Re-enrollment of Dropouts into Formal and Informal Education

This indicator assesses the using the school monitoring tool. As this tool is not yet in place, this can therefore not be measured at the baseline phase. However, the external evaluator suggests that this indicator be made more precise to make it clear why this is an intermediate outcome rather than another transition outcome.

IO Indicator 4.4 - Community Views

IO indicator 4.4 attempts to assess the community's attitudes towards the practices in place to address gender based violence, as well as attitudes towards workloads assigned to girls. According to the project logframe, these are intended to come entirely from FGDs and KIIs with community members. Indeed these assessments suggest that schools are making at least some efforts to address child protection issues, but that these are usually not fully integrated within the community. This is demonstrated by the following response by one head teacher in Chivi, who after being asked about whether the CPC works with members of the community said:

"CPC doesn't, interaction is done at the school level."

Other head teachers had different experiences, stating that:

"With the community they work through Village Health Worker or by the school, the part of the child protection committee and this parent reports to the school and also reports to the parents, that is also when we are having SDC meetings, the village health worker is also called to attend the meetings so that they ooze out some views from the children not mentioning their names, how they are treated at home, if there is need for the parent to be called to school the parent would be recalled so that she receives some counselling from the IGATE team at school level."

The qualitative data shows there are inconsistencies in the approach to child protection at the school level. However, there is also confusion amongst girls about the proper methods for reporting abuse and violence,

suggesting that the IGATE-T interventions can help raise awareness. This is exemplified by one discussion of girls in Mberengwa, where each girl responded with a different suggestion for how to report abuse:

"Enumerator: If something bad happened or was happening to a girl in this community, if she experienced violence or abuse, would she know what to do, who to go to, or where to go, for help? If yes What could she do if someone abused her?

Girl1: report the matter to the police

Enumerator: Who could she go to?

Girl2: tell police

Girl3: parents

Girl4: teachers

Enumerator: Please describe in detail what she could do.

Girl1: should look for the perpetrator and have him arrested"

While the qualitative assessments do provide rich insights into the community's views on these issues, it would be valuable to add a quantitative component to this indicator. For example, the headmaster surveys ask questions about the presence of child protection programs at the schools specifically. The table shows potential indicators below, such as the proportion of schools with programs to assist marginalized youth where not all schools have programs in these areas. These would be a useful supplement to the qualitative findings to measure progress.

Table 5.9: *Quantitative Measures for Child Protection Indicators*

Indicator	Intervention Group	Control Group	Statistically Different
Community Views			
Child Protection Committee at School	100%	91.4%	No
Abuse Case Reported to CPC in Past 6 Months	44.7%	25.7%	No
School Has Program to Assist Girls	89.5%	40.0%	Yes***
School Has Program to Assist Marginalized Girls	79.0%	37.1%	Yes***
School Has Program to Assist Marginalized Boys	55.3%	34.3%	No

For the second part of this IO indicator, the discussions of qualitative evidence for attitudes about gender balance in workloads was described in section 3.5, but it would be worth restating in this context. Within focus group discussions, parents held widely differing opinions and attitudes about girls and their education. In general though, discussions with parents and educators seem to suggest that people's attitudes towards girls education and division of chores have all been changing in ways that will support girls' education.

Many parents explain that people are now more aware of dividing up chores (at home and at school) equally between boys and girls so girls can still focus on their studies.

Parents also expressed changes in attitudes towards the value of girls' education. While some parents were aware that some people still believed girls' education was less valuable than boys', no one claimed to hold

these views themselves. However, many teachers, headmasters, and community leaders claim that parents and caregivers were not particularly supportive of either genders' education in general.

5.5 Subgroup Analysis of Intermediate Outcomes

The following table related some of the quantitative IO indicators to the characteristics and subgroups discussed throughout the report. The stars in the table indicate if there is a statistically significant difference between girls with and girls without each characteristics or barrier (*p < 0.1; **p < 0.05; *** p < 0.01). Note these indicators are further analysed by district in Annex 15.

Note that this table highlights key characteristics that have a statistically significant relationship with some of the main intermediate outcome indicators. For instance, having a high chore burden is associated with poorer attendance, and with coming from a household that doesn't contribute to school fees. Having a disability has a modest relationship with the Intermediate Outcomes, if it has an any impact at all. More pronounced relationships arise when you consider specific disabilities. Visual impairments in particular have a significantly negative relationship with a girl's agency over decisions to continue with education. Many of the characteristics or barriers that are related to the intermediate outcome indicators are the same as those identified to be related to learning outcomes in section 4.2. For example, not speaking the language of instruction or having a disability are both characteristics associated with girls having poorer performance in learning indicators. These also have a significant relationship in YLI scores and the likelihood that a girls' household contributes to school fees, which are among the project's intermediate outcome indicators. This is consistent with the project's theory of change, and suggests that interventions designed to address the barriers facing girls in marginalized groups identified in section 3 may allow the project to see improvement in indicators for both intermediate and primary outcomes.

It should be noted that at the baseline stage of the analysis, these kinds of relationships are not capable of determining causality. To get a sense of the mechanisms that connect these characteristics and outcomes, it would be beneficial to add questions to the qualitative instruments that would specifically ask interviewees to reflect on the way certain characteristics impact not only these intermediate outcomes, but also learning and transition outcomes.

Table 5.10: *Intermediate Outcome Indicators - Subgroup Analysis*

Characteristics	Teacher Encourages Questions	% of Students Missed 3+ School Days (in last 20 school days)	YLI Score	Agency Over Decision to Continue School	Household Contributing to School Fees
Total Sample	79.2%	14.0%	55.9	48.6%	69.2%
Has a disability	75.6%*	15.1%	55.2*	51.8%	63.6%**
- Visual	84.6%	13.6%	56.2	29.7%***	73.5%
- Hearing	72.5%	15.2%	53.8	56.4%	66.7%
- Mobility	72.5%	20.3%	57.3	56.4%	69.7%
- Cognitive	74.8%	17.0%	52.8***	48.1%	65.7%
- Self-care	71.9%	6.9%	56.8	50.0%	54.8%*
- Communication	81.2%	11.1%	57.0	46.7%	51.9%*
Orphan					
- Single	79.0%	12.9%	56.4	48.7%	65.4%***
- Double	73.7%	13.5%	56.7	51.9%	55.2%***
Lives without parents	76.6%***	12.5%	56.0	46.0%	70.6%
Doesn't speak language of instruction	81.4%**	12.9%	55.4***	49.1%	67.9%***
Uneducated parent					
- Head of Household	77.5%	16.9%	55.8	52.8%	53.4%***
- Primary Caregiver	78.4%	13.2%	55.9	49.8%	60.4%***
Apostolic Household	77.5%*	15.4%	55.5	45.9%*	70.0%
High chore burden	76.0%	11.5%*	55.8	46.7%	66.3%*
Insufficient seating at school	79.4%	13.2%***	55.3	49.1%**	69.7%*
No water at school	79.6%	14.3%	54.4***	49.7%	69.0%
Difficult for household to afford school	79.4%	14.4%**	56.1	49.2%	69.2%
Household unable to meet basic needs	78.9%	12.7%	55.8	47.9%	72.9%***
Gone to sleep hungry for many days in last year	80.1%	14.3%	56.2	47.7%	61.9%***
Access to a bicycle	77.9%	13.8%	56.7**	49.7%	71.6%

5.6 Relating Intermediate Outcomes to Learning Outcomes

This section connects the indicators for the literacy and numeracy outcomes to the indicators identified in this section for intermediate outcomes using a standard regression model.[17] It is important to note that at the baseline evaluation stage, no causal relationships can be determined. The following table shows that a higher YLI score, a sense of empowerment, and coming from a household that contributes to a girl's school fees are both predictors of better performance on literacy and numeracy assessments. Leadership skills

[17]Note this model includes all controls indicated in table 4.22 as well, but these have not been displayed here to avoid repetition.

and a sense of agency are also significantly related to M2 transition indicators. Student reports of frequent teacher absences do not have a significant effect on learning outcomes, nor does the likelihood that a teacher frequently asks questions.

These findings suggest that the project's emphasis on interventions that aim to empower girls with a sense of agency and leadership skills is well founded and may lead to improved performance on literacy assessments. However, it is not clear that interventions targeting improved attendance specifically will have this kind of impact. Midline and endline assessments will be able to give greater insights into the dynamics between all of these factors.

Table 5.11: *Connecting Intermediate and Learning Outcomes*

Regressor	Regression 1: Literacy Score	Regression 2: Numeracy Score	Regression 3: M2 Transition
Teacher Frequently Absent	-0.53	-0.46	-0.99%
Teacher Encourages Questions	0.20	1.13	-0.55%
Missed 3+ Days of Last 20	-1.51	0.45	-1.60%
YLI Score	0.23***	0.27***	0.17%**
Has Agency Over Decision to Continue Education	2.65***	1.93**	-3.52%**
Household Contributing School Fees	2.98***	2.13*	2.21%
> School, Girl, PCG, and Household Characteristics	Yes	Yes	Yes
> Grade Dummy Variables	Yes	Yes	Yes
> District Dummy Variables	Yes	Yes	Yes
> School Fixed Effects	Yes	Yes	No

Qualitative Check In: Relating Intermediate, Learning Outcomes, and Subgroups

Qualitative assessments can also shed some light onto the relationship between intermediate and learning outcomes, as well as on the relationship between these things and the subgroups discussed in section 5.5. However, additional questions to look at these relationships specifically should be considered for the qualitative instruments used for the midline evaluation to get a clearer picture.

The relationships between these many factors is naturally quite complicated. However, within the qualitative assessments, some general themes appear regularly. Many girls report not having much control over their decision to attend school (both on a short term and long term basis), and note that attendance will help them do better in school. Many girls also cite household obligations, chores, and illness as main barriers preventing them from attending school. Girls often link household's ability to pay for school feeds, the ability to understand their teacher's questions, and attending school regularly to better education outcomes (both learning and transition-related outcomes). This evidence supports the project's theory of change, which is designed to address all these intermediate outcomes and ultimately the primary outcomes as well.

In their words:

"Enumerator: Is there anything you could do differently now to improve your chances of success? Who can you ask to help you to achieve that? Who can help you to achieve that without asking? What actions can you take? Who decides what steps you should take?

Girl: Reading books, coming to school regularly. I can ask grandmother to help me achieve this. No one can help me to achieve this without asking. Grandmother decides what steps I should take" - Girl in Chivi

In response to the question *"what are the biggest struggles you face in obtaining success in the future?"* answers from one FGD of girls included:

- *"Money to go to school"*
- *"Being unable to understand questions"*
- *"Being sick often"*
- *"Failing to proceed due to being unhealthy and missing out lessons as parents will think that it is better to stay at home"*

"I don't get the time [to do homework[because I stay with my grandmother so when I get home I do house chores." - Girl in Insiza

"What are the biggest struggles you face in obtaining success in the future?
Girl1: School fees. [...] Our parents fail to pay fees and we usually end up failing to attend school.
Girl2: Proper uniform is also another challenge that we have as students and it can affect our future because if one does not have a proper uniform they end up hating to come to school and start hiding in the bush or shopping center" - Girls in Mangwe

6. Conclusions

6.1 Key Findings

Baseline data collection for the evaluation of the IGATE-T project collected data on 3,607 marginalized youth in rural Zimbabwe. The youth in our sample live in some of the most rural and impoverished areas of the country. The data show that the project is targeting beneficiaries who face particularly strong barriers to their education. Notably, approximately 10% of girls in the sample have some type of disability. In addition, just over 20% of the youth in the sample had one or both of their parents die, and a 30% of youth are living without either parent in their household. Over 70% of youth belong to households who find it financially difficult to afford their child's school fees.

The IGATE-T program will target both in-school and OOS girls, to improve their learning and transition outcomes. The sampling of in-school girls, teachers, and households was largely successful, collecting data on 3,110 in-school girls, reaching 98% of the target sample size required for sufficient statistical power at midline to meet the GEC requirements for the evaluation of learning and transition outcomes. The sampling of OOS girls, however, fell significantly below its minimum required sample size, despite efforts to identify and survey all CBE-eligible OOS girls in the sample point communities. This raises important concerns about the expected numbers of potential CBE beneficiaries that are present in the rural communities. The small sample size also means that without additional data collection, the OOS sample size will not have enough statistical power to satisfy the GEC power requirements at midline.

The midline and endline analyses will incorporate quantitative analyses that compare changes in outcomes within a group of intervention beneficiaries with outcomes within a control group that did not receive the intervention. The most notable difference between the intervention and control groups at baseline is in regard to past exposure to the original IGATE program; all of the intervention locations had received at least a partial IGATE intervention, while none of the control locations did. Despite these factors, at baseline we observe no significant differences between the intervention and control groups in terms of average learning and transition outcomes.

There are important differences between males and females observable in both our own data and external data sources. Females are just as likely as males to enrol in primary school and progress through early grades, and they tend to outperform their male classmates on both literacy and numeracy measures as long as they remain in school. However, starting during the final years of primary school, are more likely than males to leave school without completing. They are less likely than males to complete primary school or enroll in secondary school, and when they are enrolled in school, they are more likely to have fallen behind in regards to the rate of progression (which, given Zimbabwe's policy of unimpeded progress, suggests that they had taken time off or did not attend regularly).

Although females significantly outperform males on learning assessments, there remains ample room for improvement in learning outcomes. When we break results down by grade and learning subtask, we observe substantial variation across learners at each age in terms of proficiency. When individual characteristics and barriers were compared with performance on learning assessments, we find that having a disability, having an uneducated primary caregiver or having a teacher who is often absent are the strongest predictors of lower performance on literacy and numeracy assessments. We also observe substantial differences in proficiency across topics, which is again illustrated for literacy and numeracy performance in the following figures.

Figure 6.1: *Average literacy score by subtask and grade*

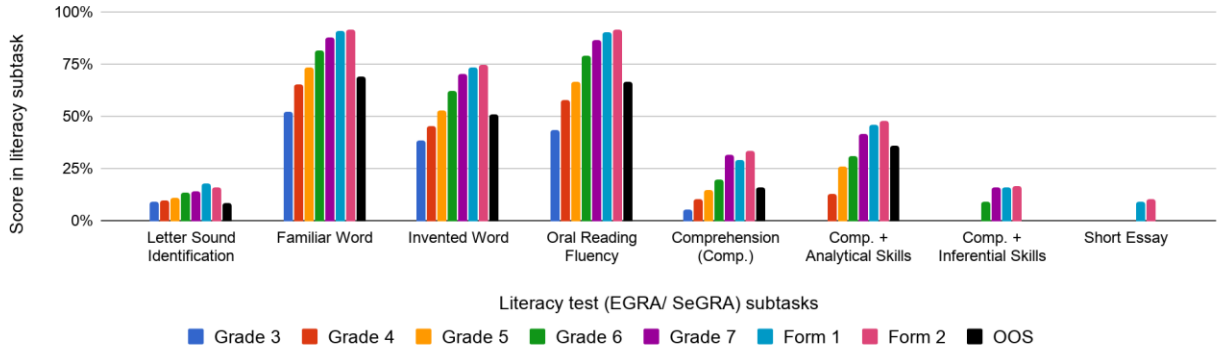
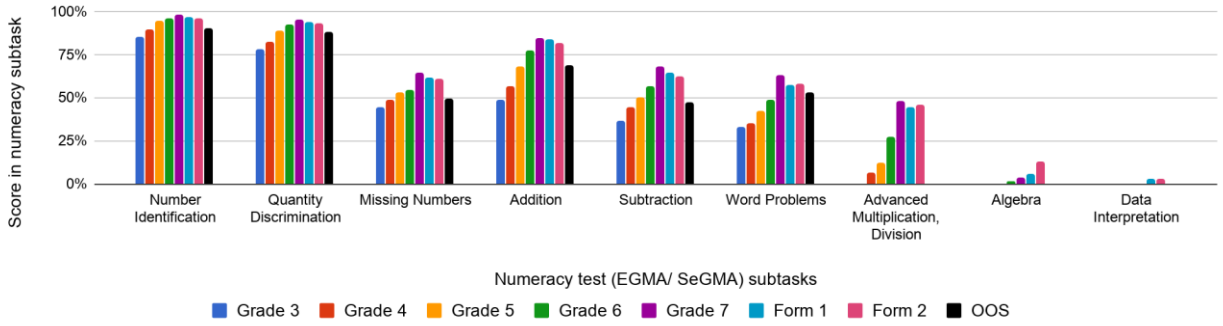


Figure 6.2: *Average Numeracy Score By Subtask and Grade*



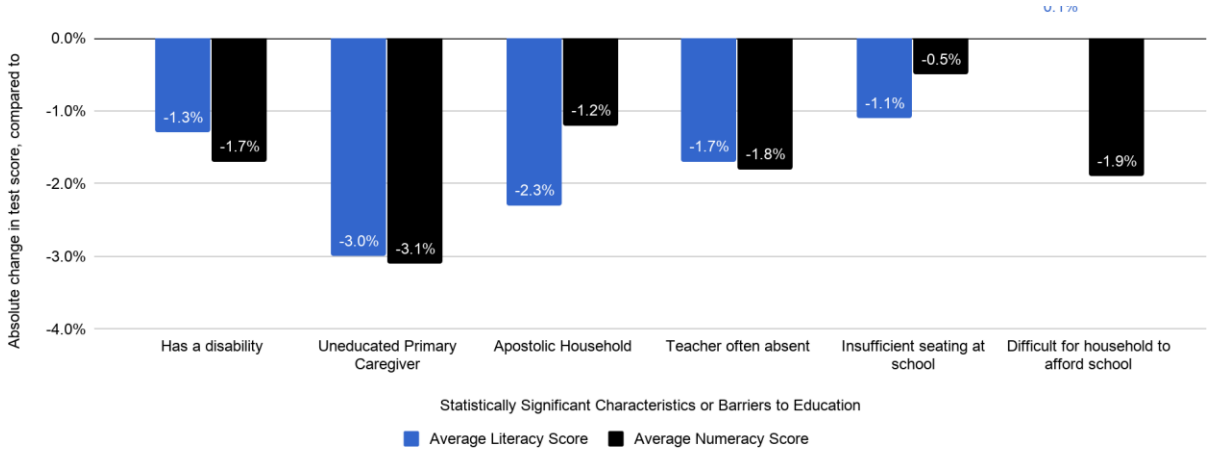
This suggests that there is substantial room for the IGATE-T project to improve overall learning outcomes. To highlight potential for this, Table 6.1 compares the portion of Grade 6 girls who are non learners with those who are proficient (comparing the lowest and highest categories of performance) across all early-grade learning subtasks. The table focuses on Grade 6, as it is following this year that dropout rates substantially rise. We observe that there is substantial room for improved learning outcomes on most topics. To the extent that lack of proficiency on some or all of these topics discourages continuation in school after it is no longer compulsory, improving proficiency may also lead to improvements in transition outcomes.

Table 6.1: *Proficiency by Early Grade Learning Subtask, Grade 6 Girls*

Literacy	Non Learner	Proficient	Numeracy	Non Learner	Proficient
Letter Sound Identification	40.8%	0.2%	**Number Identification**	0.9%	91.6%
Familiar Word	3.5%	74.2%	**Quantity Discrimination**	1.1%	85.7%
Invented Word	8.4%	34.7%	**Missing Numbers**	1.8%	5.7%
Oral Reading Fluency	3.3%	62.3%	**Addition**	1.1%	50.1%
Comprehension	38.4%	1.3%	**Subtraction**	2.7%	21.0%
			Word Problems	9.5%	21.4%

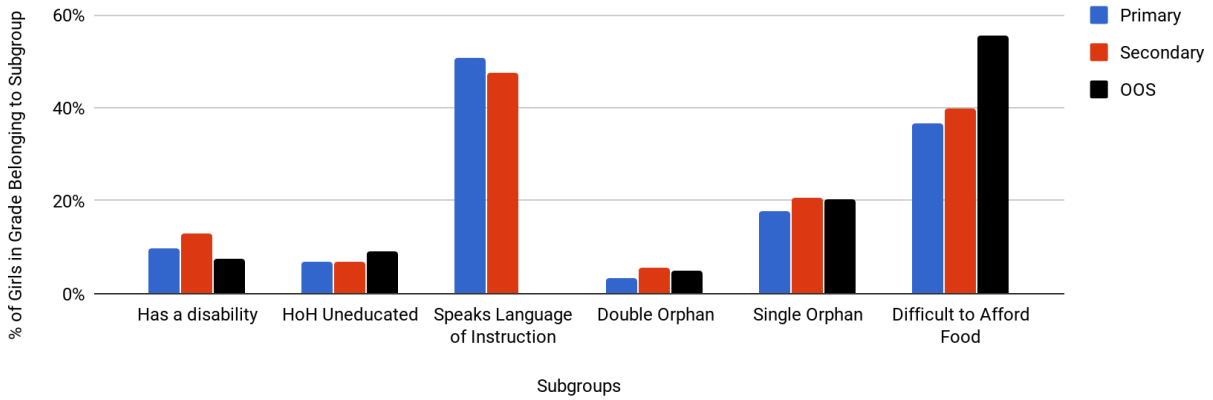
The baseline data also highlights a number of factors that may affect learning and transition outcomes. Figure 6.3 shows how certain individual, household and school characteristics are related to literacy and numeracy performance.

Figure 6.3: *Predictors of Learning Performance*



As discussed in section 5.5, many of these characteristics are also related to indicators for intermediate outcomes as well, making them important to consider in the context of the project's theory of change.

Figure 6.4: *Girls Belonging to Specific Subgroups*



25.8% of girls expressed concerns regarding teacher attendance. Only 56% of intervention schools and 44% of control schools have had their teachers trained in gender-based teaching practices. According to enumerator's classroom observations, about three-quarters of teachers ensure that all students participated in class. However, fewer than half of all teachers used resources other than the textbook in their lessons.

6.2 Recommendations

Section 2 of this document discussed areas of concern regarding the data collection process and sampling methodology which could lead to potential issues at later stages of analysis. We recap these concerns, and make suggestions for how the interventions could be improved using this information and the findings from sections 3-5.

Issue	The enumerators failed to find enough CBE-eligible OOS girls at the sample locations to reach the data collection target.
Primary Concern	(1) A smaller sample size reduces the statistical power of the analysis, and the midline and endline evaluation will fall short of the power level required by the GEC program in order to include the OOS population as a target beneficiary group when assessing overall project impact. (2) The failure to find OOS girls despite extensive efforts to do so suggest that there are significantly fewer CBE-eligible girls in the program locations than previously thought. This calls into question the predicted OOS beneficiary numbers, feasibility and value-for-money of the CBE intervention in at least some of the locations.
Recommendation	Conduct a more-thorough assessment of CBE demand in the treatment locations prior to implementation of the CBE program. This means collecting additional data on the OOS population in each region in which the CBE program will be implemented (including the Camfed districts) to assure that program resources are allocated efficiently and only in areas where they can reach enough people to justify the costs. Where possible, the target group for each CBE program may be expanded to include a wider range of participants, potentially including older individuals, active students, or males.

Issue	There is complete overlap between between the treatment locations of IGATE and IGATE-T.
Primary Concern	The difference-in-differences analyses at midline and endline will measure the aggregate impact of both the IGATE and IGATE-T programs, collectively. It will not be able to distinguish the impact of the IGATE-T program specifically.
Recommendation	This is not a particularly problematic concern that can be completely addressed. Most importantly, the program should be aware of this issue when interpreting results. To the extent possible, the External Evaluator will use across-location variation in the intensity of IGATE and IGATE-T treatment to distinguish the effects of the two programs. However, we do not anticipate that this variation will be substantial enough to fully distinguish the impacts of the two interventions.

Issue	There is little overlap in the sample locations from the evaluation of the IGATE and IGATE-T projects.
Primary Concern	It may not be possible to estimate the aggregate impact of IGATE and IGATE-T across the entire duration of the two projects. The primary issue arises because we will not be able to confidently estimate changes in learning outcomes between the IGATE endline and IGATE-T baseline. There are also other issues related to the focus on a subset of districts and the inclusion of additional subgroups in the IGATE-T evaluation.
Recommendation	The External Evaluator will look to other data sources, besides the individual level surveys and learning assessments, to gain insights into the overall impact of the two projects. Enrolment records from a larger set of schools than just those included as sample locations may give insights into the overall impact that the programs had on transition. Another possibility is, during IGATE-T midline or endline, to collect data at additional locations that were included as sample points for IGATE; this would improve our ability to determine how learning outcomes changed between the two projects, and provide a more accurate assessment of overall program impact.

Issue	Sample point locations are not geographically representative of the program locations.
Primary Concern	The GEC limited data collection to the four districts in which Camfed is not active. This means that the evaluation results using our data may not be fully representative of the entire treatment population and the overall impact of the project. These concerns were amplified by the fact that most of the non-Camfed districts had too few eligible control locations to enable a geographically-representative sample distribution of the population in the non-Camfed districts. Instead, the geographic distribution of sample points was determined by the availability of eligible control locations rather than the expected reach of the program, resulting in a sample that is heavily concentrated in Chivi, where there were control schools available. This means that the evaluation of the program will be representative of the overall program impact only to the extent to which the program's effect on the Chivi-heavy sample is representative of the overall program effects.
Recommendation	These limitations of the analysis should be kept in mind when interpreting the results. Even if the program cannot survey individuals in the Camfed locations, the evaluation would benefit from any additional data (such as administrative data and school records) that may allow for a comparison of program reach and impact across Camfed and non-Camfed locations. At endline, based on observable differences across districts, the external evaluator should provide an assessment of the direction and magnitude of any bias introduced into the evaluation due to geographic restrictions on the sample.

Issue	A lower-than-expected number of boys were included in the sample.
Primary Concern	A smaller sample size reduces the statistical power of the analysis. We will be less confident than expected regarding the changes in the attitudes, behavior and performance of males. There was no requirement on the sample size of boys placed on the project by the GEC. However, it is substantially smaller than is ideal, as it is important to understand how boys are affected by the policies targeting their female siblings and classmates.
Recommendation	The sampling methodology for recruiting boys into the sample should be expanded at midline and endline to increase the male sample. If nothing else, we recommend that a short survey is administered to broad set of boys at endline to collect basic information and ask about the expectations they face regarding choir allocation, helping with other children at home, their future education aspirations, and their beliefs regarding gender roles. The survey could be used to identify whether there are significant differences between these factors across treatment and control locations.

Issue	Short window for implementation and evaluation.

Primary Concern	There is less than 10 months between the end of baseline data collection and the beginning of midline data collection. This is very little time to implement interventions with the hopes of fundamentally changing attitudes, social norms,behavior and learning outcomes. We expect gains to be small between baseline and midline.
Recommendation	Drawing conclusions about the impact of the program should be reserved until endline, which is currently scheduled for two years after midline. We recommend keeping the endline data collection as late in the program timeline as possible in order to provide the greatest time window for the benefits of the intervention to be realized.

Issue	There may be less room for improvement along certain dimensions than there was ahead of the IGATE intervention.
Primary Concern	The initial IGATE intervention had many of the same objectives as IGATE-T. The more successful the implementation of IGATE, the less room there will be for additional gains to be made by IGATE-T. If this is the case, much of IGATE-T's benefit may be through the maintenance of the gains from IGATE. However, empirical methodology is intended to identify improvements in outcomes that were yet to be realized by baseline.
Recommendation	The project may improve its chances of achieving new improvements in outcomes by focusing resources on locations that did not receive the full IGATE intervention, or that show signs that they still have potential for significant improvement. Additionally, the IGATE-T project may expect to make the most gains from new, complementary intervention components that were not already part of IGATE. CBE is a good example of this in locations where demand for the program is high enough. We discuss additional opportunities below.

Additional opportunities for project interventions

In section 3, we identified that of the barriers and characteristics considered in this report, having a disability, an uneducated primary caregiver, and household financial distress are among the most common challenges facing learners in rural Zimbabwe. Each of these challenges were shown in section 4 to be related to learning assessment scores, so designing the interventions to address or mitigate these challenges may lead the project to see greater gains in learning outcomes at midline and endline evaluation points.

There are also significant differences between performance on the individual subtasks in learning and numeracy assessments. For instance, almost no youth are proficient at letter sound identification, comprehension and inference, missing number identification or algebra (see section 4), while nearly all youth are proficient at tasks like number identification and quantity discrimination. Even at higher grades, many students are still non-learners in these tasks. Understanding students' weaknesses will allow the project to design interventions that can target the areas the students need the most help with in learning.

To see further gains in learning and transition, designing interventions to address language barriers (recall about half of the sampled girls do not speak the language of school instruction) have significant potential to improve education outcomes. This is particularly true given the subtasks that students struggle the most with are related to their understanding of English (e.g. word problems, letter sound identification), which is the language of instruction.

In section 5 we identified key predictors in differences in indicators for attendance, life skills, and attitudes and perceptions. These include a girl's disability status, parental education, and chore burden. Many of the

characteristics that are correlated with indicators for intermediate outcomes are also shown to be associated with the primary outcomes as well. According to the project's current theory of change, interventions that address these kinds of barriers would lead to improvements in both intermediate outcomes and primary outcomes (learning, transition, and sustainability).

In order to reach the project's sustainability outcome goals, it will be critical that the project gets the district and province-level education authorities to buy into the project interventions at the school level. As discussed in section 4.4, there is room for improvement in getting the MoPSE officials to endorse integration of leadership activities in school calendars. Working with school, community, and system stakeholders will be an essential component of ensuring the project reaches its sustainability targets.

Annexes

Annex 1: Logframe

Attached with IGATE-T Baseline Report documents package.

Annex 2: Outcomes Spreadsheet

Attached with IGATE-T Baseline Report documents package.

Annex 3: Key Findings on Output Indicators

Output Indicators

Logframe Output Indicator	Means of verification/sources	Collection frequency
Output 1: Whole School Development to improve inclusive education and teacher practices		
Output 1.1: Number of primary and secondary school teachers (disaggregated by gender) who completed staff development initiatives aimed at improving their teaching practice	Sessions reports, registers, pre-post test tools	Monthly and quarterly
Output 1.2: Number of primary school head teachers (disaggregated by gender) who completed school leadership programme	Sessions reports, registers, pre-post test tools	Monthly and quarterly
Output 1.3: % of struggling learners who consider their teachers are providing them with support to improve their reading/mathematics performance	Student School Monitoring Tool	Once per term
Output 1.4: % of parents actively participating (all year round) in school activities targeted at improving learner performance	Caregiver Monitoring Tool, School-Caregiver Tool	Bi-annually
Output 2: Marginalised adolescent girls access relevant CBE post-primary learning		
Output 2.1: # of girls enrolled in community based education	CBE enrolment registers	Quarterly
Output 2.2: % of adolescent girls enrolled in CBE who progress through financial literacy levels	CBE enrolment registers, Community CBE Tool	Quarterly
Output 2.3: % of adolescent girls attending CBE mentored by local entrepreneurs and learning leaders	Community CBE monitoring Tool	Monthly and Quarterly
Output 3: Girls with enhanced leadership competencies participating equally in and out of class		

Output 3.1: % of girls leadership clubs (both primary and secondary) who are meeting at least twice per month	Club Attendance Registers	Monthly and Quarterly
Output 3.2: % adolescent girls enrolled in Community and School Leadership Clubs demonstrating leadership	Student Monitoring Tool, Youth Leadership Index Questionnaire	Quarterly Annually (YLI)
Output 3.3: % of struggling girls participating in leadership clubs who are at risk of drop out or exclusion from primary, secondary or Non Formal Education who report increased confidence in English.	Student Monitoring Tool, Teacher record book, Mastery Learning Assessment tool	Quarterly Annually
Output 4: Community actions on learning, gender equity and child protection increased		
Output 4.1 Number of School Child Protection Committees working with Community Child Protection Committees to address child protection at community level.	Community Monitoring Tool / Child Protection Committee Logbook	Quarterly
Output 4.2: % of abuse cases monitored to conclusion by School Child Protection Committee (SCPCs) and Community Child Protection (CPCCs)	Community Monitoring Tool, Case Management Tracker	Quarterly
Output 4.3: Percentage of school development committees (SDCs) with documented plans to improve learning and retention.	School Profiling Tool	Annually
Output 4.4: % of girls at risk of drop out identified and supported to remain in school by Community Child Protection Committees	Community Monitoring Tool	Quarterly

Baseline Status of Output Indicators

Logframe Output Indicator	Baseline status/ baseline values relevance of the indicator for the project ToC	Baseline status/ Baseline values
Output 1: Whole School Development to improve inclusive education and teacher practices		
Output 1.1: Number of primary and secondary school teachers (disaggregated by gender) who completed staff development initiatives aimed at improving their teaching practice	Output 1 indicators contribute 35% to the intermediate outcomes and project outcomes	The baseline value is 0
Output 1.2: Number of primary school head teachers (disaggregated by gender) who completed school leadership programme	All head teachers are members of School Development Planning. The leadership competencies are	The baseline value is 0

	important for school planning and management.	
Output 1.3: % of struggling learners who consider their teachers are providing them with support to improve their reading/mathematics performance	Learner centered teaching practices are key for improved learning outcomes.	About 20% of target learners are struggling with oral reading fluency (from the baseline report) On the other hand, about 40% of target learners are struggling with addition and subtraction.
Output 1.4: % of parents actively participating (all year round) in school activities targeted at improving learner performance	Parental and community support for education varies by school. The project is planning for community engagements in 56 intervention school clusters. The focus is to increase community involvement in education CSGE will be used as a tool to engage communities on learning, gender equity, and child protection. It will be merged with activity Support community development and monitoring of learning, gender equity and child protection action plans.	About 69% of households are contributing to school fees payment for girls
Output 2: Marginalised adolescent girls access relevant CBE post-primary learning		
Output 2.1: # of girls enrolled in community based education	Output 2 indicators contribute 30% to the intermediate outcomes and project outcomes The government is still at early stages of rolling out the Non-Formal Education programme.	The baseline value is 0
Output 2.2: % of adolescent girls enrolled in CBE who progress through financial literacy levels		The baseline value is 0
Output 2.3: % of adolescent girls attending CBE mentored by local entrepreneurs and learning leaders		The baseline value is 0
Output 3: Girls with enhanced leadership competencies participating equally in and out of class		
Output 3.1: % of girls leadership clubs (both primary and secondary) who are meeting at least twice per month	Output 3 indicators contribute 20% to intermediate outcomes and project outcomes The frequency of meetings of clubs apart from showing exposure time it informs about the efforts and interest	51% of in-school clubs are meeting at least twice a month. (Source: school assessment data

	of schools to accommodate such activities in the school and the commitment shows the benefits they see from activities given that their calendars are overwhelmed.	
Output 3.2: % adolescent girls enrolled in Community and School Leadership Clubs demonstrating leadership	Tracks of behaviors that shows improvement in leadership competencies	The baseline value is 0. Community clubs are currently being set up and the data will be available in the month of April during school holidays when community clubs start activities
Output 3.3: % of struggling girls participating in leadership clubs who are at risk of drop out or exclusion from primary, secondary or Non Formal Education who report increased confidence in English.		To be determined
Output 4: Community actions on learning, gender equity and child protection increased		
Output 4.1 Number of School Child Protection Committees working with Community Child Protection Committees to address child protection at community level.	Output 4 indicators contribute 15% to intermediate outcomes and project outcomes	Baseline value is 0
Output 4.2: % of abuse cases monitored to conclusion by School Child Protection Committee (SCPCs) and Community Child Protection (CPCCs)		Baseline value is 0
Output 4.3: Percentage of school development committees (SDCs) with documented plans to improve learning and retention.		To be determined
Output 4.4: % of girls at risk of drop out identified and supported to remain in school by Community Child Protection Committees	Mapping took place in all 9 districts to ensure common understanding of key stakeholders and how to proceed to community level engagement. Next step will be to carry out the mapping exercise at cluster level with the support from the district representatives.	To be determined

Output Indicator Issues

Logframe Output Indicator	Issues with the means of verification/sources and the collection frequency, or the indicator in general?	Change/ additions
Output 1: Whole School Development to improve inclusive education and teacher practices		

Output 1.1: Number of primary and secondary school teachers (disaggregated by gender) who completed staff development initiatives aimed at improving their teaching practice	No issues	No changes
Output 1.2: Number of primary school head teachers (disaggregated by gender) who completed school leadership programme	No issues	No changes
Output 1.3: % of struggling learners who consider their teachers are providing them with support to improve their reading/mathematics performance	Common understanding of the term struggling learners	No changes
Output 1.4: % of parents actively participating (all year round) in school activities targeted at improving learner performance	No issues	No changes
Output 2: Marginalised adolescent girls access relevant CBE post-primary learning		
Output 2.1: # of girls enrolled in community based education	No issues	No changes
Output 2.2: % of adolescent girls enrolled in CBE who progress through financial literacy levels	No issues	Reworded: % of adolescent girls enrolled in CBE who progress through financial literacy levels.
Output 2.3: % of adolescent girls attending CBE mentored by local entrepreneurs and learning leaders	Common understanding of learning leaders.	No changes
Output 3: Girls with enhanced leadership competencies participating equally in and out of class		
Output 3.1: % of girls leadership clubs (both primary and secondary) who are meeting at least twice per month	No issues	No changes
Output 3.2: % adolescent girls enrolled in Community and School Leadership Clubs demonstrating leadership	No issues	No changes
Output 3.3: % of struggling girls participating in leadership clubs who are at risk of drop out or exclusion from primary, secondary or Non Formal Education who report increased confidence in English.	No issues	No changes
Output 4: Community actions on learning, gender equity and child protection increased		
Output 4.1 Number of School Child Protection Committees working with Community Child	No issues	No changes

Protection Committees to address child protection at community level.		
Output 4.2: % of abuse cases monitored to conclusion by School Child Protection Committee (SCPCs) and Community Child Protection (CPCCs)	No issues	No changes
Output 4.3: Percentage of school development committees (SDCs) with documented plans to improve learning and retention.	No issues	No changes
Output 4.4: % of girls at risk of drop out identified and supported to remain in school by Community Child Protection Committees	No issues	No changes

Annex 4: Beneficiary Tables

The following tables present an analysis of the project beneficiaries. The target group numbers in this annex refer to an approximation of the specific number of girls targeted by the interventions based on the size of the sample. The numbers in this annex do not include boys.

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.	37,346 girls	--	--

Other Beneficiaries

Beneficiary type	Total project number	Total number of girls targeted for learning outco the project has reached by Endline
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.	51,756	From both GEC1 and Non-GEC1 Schools These are indirect learning beneficiaries
Broader student beneficiaries (boys) – boys who will benefit from the interventions in a less direct way, and therefore may benefit from	51,756	From both GEC1 and Non-GEC1 Schools

aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.		These are indirect learning beneficiaries
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.	53,797	
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.	1,486	1064 Primary teachers+266 primary school head Secondary Teachers
Broader community beneficiaries (adults) – adults who benefit from broader interventions, such as community messaging /dialogues, community advocacy, economic empowerment interventions, etc.	100,000	These beneficiaries will be reached through so community interventions

Target Groups - by School

School Age	Project Definition of Target Group (X where appropriate)	Number Targeted Through Project Interventions	Sample Size of Target Group at Baseline
Lower Primary	X	24,420	1,742
Upper Primary	X	12,440	887
Lower Secondary	X	9,209	657
Upper Secondary			
Total		46,069	3,286

Target Groups - by Age

School Age	Project Definition of Target Group (X where appropriate)	Number Targeted Through Project Interventions	Sample Size of Target Group at Baseline
Aged 6-8	X	5%	164
Aged 9-11	X	44%	1,446
Aged 12-13	X	29%	953
Aged 14-15	X	16%	526
Aged 16-17	X	5%	164
Aged 18-19	X	1%	33
Aged 20+			
Total			3,286

Girls with a Disability	Intervention Group		Control Group	
	Number	Percent of Total	Number	Percent of Total
Vision Impairment	22	1.5%	31	2.0%
Hearing impairment	26	1.9%	27	1.7%
Mobility Impairment	35	2.3%	32	2.1%
Cognitive Impairment	58	4.0%	63	3.9%
Self-Care Impairment	16	1.2%	18	1.1%
Communication Impairment	18	1.2%	17	1.1%
Any disability	**148**	**10.1%**	**161**	**10.5%**

Target Groups - by Subgroup

Social Group	Project Definition of Target Group (X where appropriate)	Number Targeted Through Project Interventions	Sample Size of Target Group at Baseline
Disabled Girls			
- Vision Impairment	X	691	53
- Hearing Impairment	X	875	53
- Mobility Impairment	X	1,060	67
- Cognitive Impairment	X	2,027	121
- Self-care Impairment	X	553	34
- Communication Impairment	X	553	35
- Any Disability	X	4,791	309
Orphaned Girls	X	10,734	766
Pastoralist Girls			
Child Labourers			
Poor Girls	X	24,785	2,211
Total		46,069	3,286

Girls with a Disability	Intervention Group		Control Group	
	Number	Percent of Total	Number	Percent of Total
Vision Impairment	22	1.5%	31	2.0%
Hearing impairment	26	1.9%	27	1.7%
Mobility Impairment	35	2.3%	32	2.1%
Cognitive Impairment	58	4.0%	63	3.9%
Self-Care Impairment	16	1.2%	18	1.1%
Communication Impairment	18	1.2%	17	1.1%
Any disability	**148**	**10.1%**	**161**	**10.5%**

Target Groups - by School Status

Education Group	Project Definition of Target Group (X where appropriate)	Number Targeted Through Project Interventions	Sample Size of Target Group at Baseline

Out of School Girls - Have Never Attended School			
Out of School Girls - Have Attended, but Dropped Out of School	X	4,108	293
In-School Girls	X	41,961	2,993
Total		46,069	3,286

Annex 5: MEL Framework

Attached with IGATE-T Baseline Report documents package.

Annex 6: External Evaluator's Inception Report

Attached with IGATE-T Baseline Report documents package.

Annex 7: Data Collection Tools for Baseline

Attached with IGATE-T Baseline Report documents package.

Annex 8: Datasets, Codebooks, and Programs

The data collected for the IGATE-T Baseline was sent to the client on February 14, 2018 and resent to WVUK on March 27th using the encrypted data transfer service "wesendit.com" to ensure the data within the identified data was protected. This data transfer included the raw, cleaned, and cleaned and de-identified datasets for each quantitative assessment, as well as the transcripts from the qualitative data sources. Attached in the IGATE-T Baseline Report documents package that accompany this report are the R scripts that were used to clean the data, analyse the data, and codebooks that provide details about the variables used to match the assessments to one another and develop the aggregate learning assessment scores.

Annex 9: Learning Test Pilot and Calibration

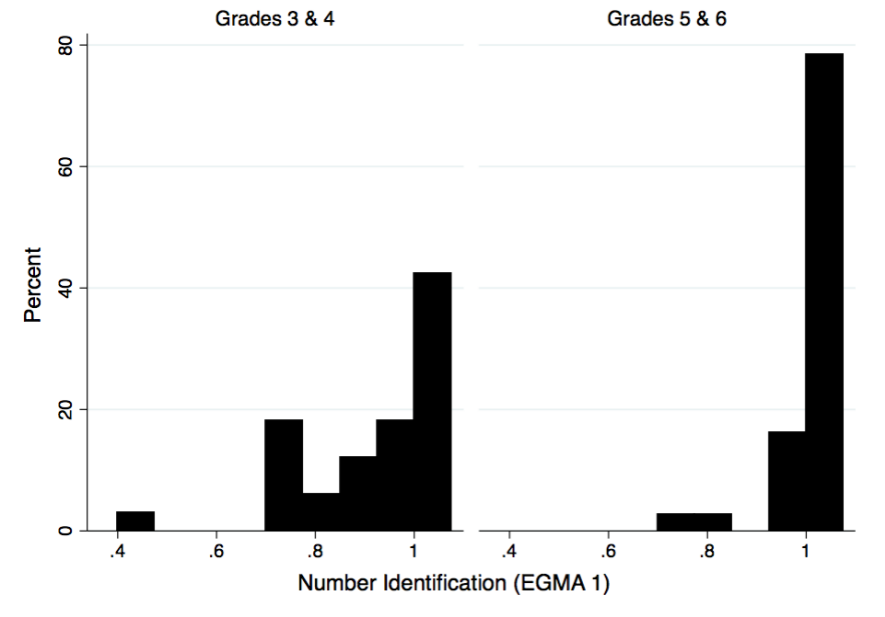
Learning outcomes are measured using the widely-used EGRA, EGMA, SEGRA, and SEGMA assessments of literacy and numeracy skills. These were instruments were also successfully implemented as part of the IGATE-1 evaluation. The calibration of these tools for IGATE-T was completed by the fund manager and external evaluator to ensure these assessments were properly coded into Tangerine, an application designed to implement these assessments on tablets in the field. Before baseline data collection began, the external evaluator and IGATE project team conducted a pilot in Zimbabwe to calibrate the learning assessments (which include assessments on literacy, numeracy, and financial literacy. Note the financial literacy assessment was not administered as part of IGATE-1).

The pilot survey was designed to observe four key learning groups: Grades 3 & 4, Grades 5 & 6, High school Form 1, and out of school. The pilot sample composition is broken down in the table below.

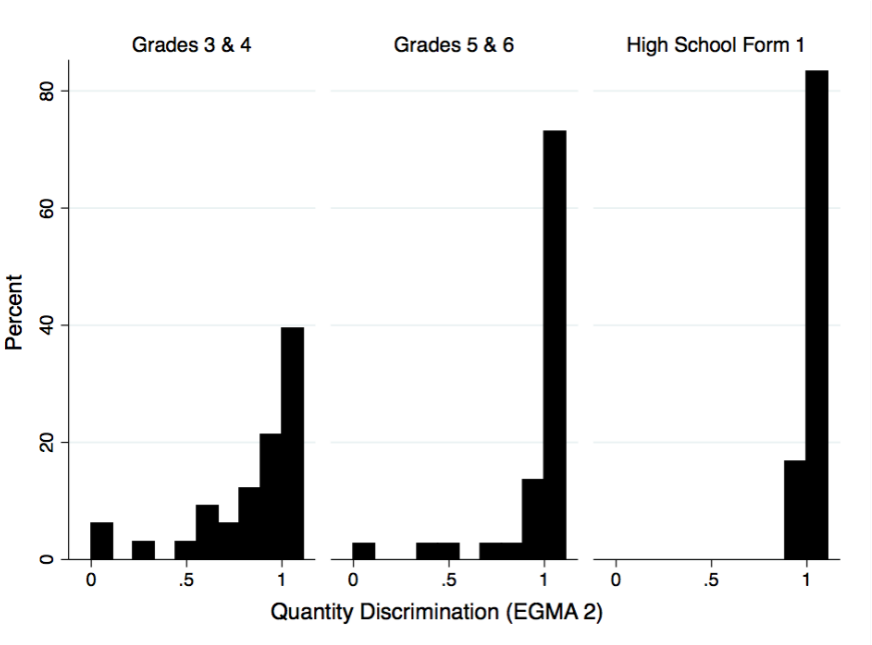
Learning category	Male	Female	Total
Grades 3 & 4	1	34	35
Grades 5 & 6	0	39	39
High school Form 1	12	16	28
Out of School	0	9	9
Total	13	98	111

Numeracy assessments

This pilot assessment found that students in younger grades had more variation in their numeracy scores than students in older grades when they took the EGMA assessment. The graph below illustrates this for Number Identification, where there is significant variation amongst individuals in grades 3 & 4, however by grades 5 & 6 almost 80 percent of individuals are scoring perfect on the assessment. This effect persists for both High school Form 1 and Out-of-school girls.



This ceiling effect took slightly longer to manifest in EGMA 2. The graph below illustrates this. While there is significant variation from grades 3 to 4, and the variation in grades 5 to 6 is not as low as EGMA 1, by High school Form 1 over 80% of individuals are scoring perfect on this assessment. However, given the numerous other numeracy assessments and their sufficiency for experimental purposes the ceiling effects observed in the EGMA 1 and EGMA 2 assessments were not a concern for the assessment of numeracy as a whole.



Literacy and financial assessments

All literacy and financial assessments appear to have significant variation for experimental purposes for individuals in the pilots' learning categories.

Comparing boys and girls

The pilot sample contains a significant group of boys at the High school Form 1 level. Given the small sample size of both boys and girls at the High school Form 1 level in the pilot assessment, it may be more relevant to compare literacy and numeracy score averages between the two, as shown below.

Assessment	Boys	Girls
Numeracy	72.2%	74.5%
Literacy	53.9%	60.9%

It appeared that boys and girls at High school Form 1 are generally comparable, with numeracy scores at near parity between the two and girls outperforming boys in literacy but not by an unreasonable amount given the variance we'd expect to see given the sample sizes for each group ($n \approx 13$).

Detailed results of the pilot are in the next three tables.

Numeracy assessment calibration

Assesment	Category	Pilot			
		Count	Average	SD	Var
EGMA 1 Number Identification	Grades 3 & 4	33	0.90	0.13	0.02
	Grades 5 & 6	37	0.98	0.05	0.00
	Highschool Form 1	24	0.98	0.04	0.00
	Out-of-School	8	0.99	0.02	0.00
EGMA 2 Quantity Discrimination	Grades 3 & 4	33	0.80	0.27	0.07
	Grades 5 & 6	37	0.92	0.21	0.04
	Highschool Form 1	24	0.98	0.04	0.00
	Out-of-School	8	0.98	0.05	0.00
EGMA 3 Missing Numbers	Grades 3 & 4	33	0.49	0.23	0.05
	Grades 5 & 6	37	0.58	0.21	0.04
	Highschool Form 1	24	0.78	0.14	0.02
	Out-of-School	8	0.75	0.21	0.04
EGMA 4 Addition (level 1)	Grades 3 & 4	33	0.54	0.24	0.06
	Grades 5 & 6	37	0.72	0.25	0.06
	Highschool Form 1	24	0.80	0.24	0.06
	Out-of-School	8	0.63	0.34	0.11
EGMA 4a Addition (level 2)	Grades 3 & 4	33	0.50	0.35	0.13
	Grades 5 & 6	37	0.71	0.26	0.07
	Highschool Form 1	24	0.74	0.30	0.09
	Out-of-School	8	0.88	0.24	0.06
EGMA 5 Subtraction (level 1)	Grades 3 & 4	32	0.44	0.30	0.09
	Grades 5 & 6	37	0.59	0.26	0.07
	Highschool Form 1	24	0.73	0.24	0.06
	Out-of-School	8	0.67	0.28	0.08
EGMA 5a Subtraction (level 2)	Grades 3 & 4	31	0.31	0.33	0.11
	Grades 5 & 6	35	0.53	0.39	0.16
	Highschool Form 1	24	0.62	0.35	0.12
	Out-of-School	8	0.65	0.40	0.16
EGMA 6 Word Problems	Grades 3 & 4	32	0.41	0.29	0.08
	Grades 5 & 6	37	0.50	0.27	0.07
	Highschool Form 1	24	0.77	0.27	0.07
	Out-of-School	8	0.88	0.15	0.02
SEGMA 1 Mathematics Written Exercise	Grades 3 & 4	0	.	.	.
	Grades 5 & 6	35	0.14	0.15	0.02
	Highschool Form 1	24	0.41	0.22	0.05
	Out-of-School	0	.	.	.
SEGMA 2 Mathematics Written Exercise	Grades 3 & 4	0	.	.	.
	Grades 5 & 6	35	0.18	0.20	0.04
	Highschool Form 1	24	0.52	0.28	0.08
	Out-of-School	0	.	.	.

Literacy assessment calibration

Assesment	Category	Pilot			
		Count	Average	SD	Var
EGRA 1	Grades 3 & 4	34	0.09	0.18	0.03
	Grades 5 & 6	38	0.15	0.17	0.03
Letter Sound Identification	High school Form 1	26	0.22	0.24	0.06
	Out-of-School	8	0.18	0.08	0.01
EGRA 2	Grades 3 & 4	34	0.59	0.32	0.10
	Grades 5 & 6	38	0.78	0.35	0.12
Familiar Word Reading	High school Form 1	26	0.95	0.08	0.01
	Out-of-School	8	0.90	0.20	0.04
EGRA 3	Grades 3 & 4	33	0.45	0.27	0.07
	Grades 5 & 6	37	0.55	0.31	0.09
Invented Word Reading	High school Form 1	25	0.72	0.25	0.06
	Out-of-School	8	0.70	0.20	0.04
EGRA 4	Grades 3 & 4	33	0.31	0.19	0.04
	Grades 5 & 6	37	0.49	0.24	0.06
Oral Reading	High school Form 1	24	0.70	0.22	0.05
	Out-of-School	8	0.75	0.21	0.05
EGRA 5	Grades 3 & 4	19	0.13	0.09	0.01
	Grades 5 & 6	31	0.26	0.19	0.03
Reading Comprehension	High school Form 1	23	0.48	0.26	0.07
	Out-of-School	8	0.55	0.18	0.03
SEGRA 1	Grades 3 & 4	0	.	.	.
	Grades 5 & 6	37	0.18	0.16	0.03
Reading Comprehension with Written Response	High school Form 1	24	0.49	0.31	0.09
	Out-of-School	0	.	.	.
SEGRA 2	Grades 3 & 4	0	.	.	.
	Grades 5 & 6	37	0.16	0.14	0.02
Reading Comprehension with Written Response	High school Form 1	24	0.42	0.27	0.07
	Out-of-School	0	.	.	.

Financial Intelligence assessment calibration

Assesment	Category	Pilot			
		Count	Average	SD	Var
Financial Intelligence Test	Grades 3 & 4	0	.	.	.
	Grades 5 & 6	29	0.09	0.09	0.01
Assessment (F57-F71)	Highschool Form 1	0	.	.	.
	Out-of-School	8	0.27	0.24	0.06

Annex 10: Sampling Framework

Attached with IGATE-T Baseline Report documents package.

Annex 11: Control Group Approach Validation

The MEL framework specifies that the 74 primary schools selected for the baseline sample should be identified from the group of IGATE schools to allow for a difference-in-difference evaluation approach. To select 37 treatment schools and 37 control schools from this set, the external evaluator used the following methodology.

In the control group, the selection included the 37 out of 42 control schools that have the maximum reported enrolment. This meant dropping primary schools with estimated total enrolment at 18, 18, 25, 38 and 45, respectively. The minimum estimated size of a school included in the sample is 69. This is not ideal. However, the restriction to schools in non-Camfed areas limits what is feasible for the selection of control sample points.

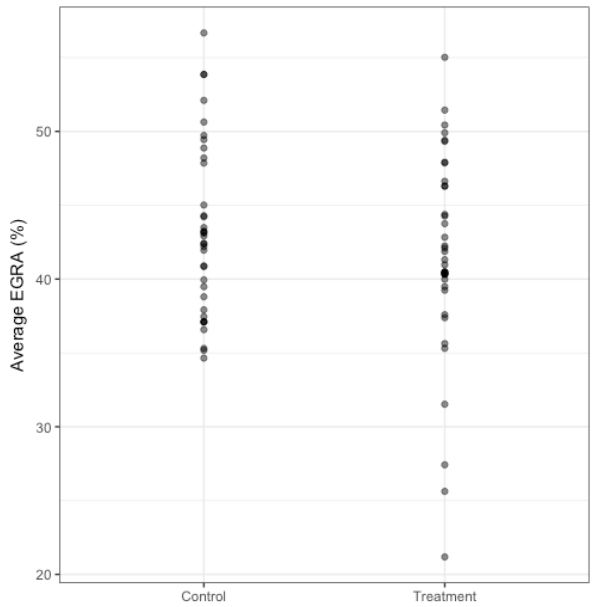
To select the 37 treatment sample points, the same number of schools was selected in each district as was necessary in the control school. To do so, the schools were listed and then the random number generator available through Google was used to select which schools in each district to include. The average school size of the treatment and control sample points were then compared. Initially, the control group had an average school enrolment of 244 students, and the treatment schools had an average enrolment of 320. We repeated the process of choosing a random selection of treatment schools, and after doing so the new sample had an average enrolment of 252 students.

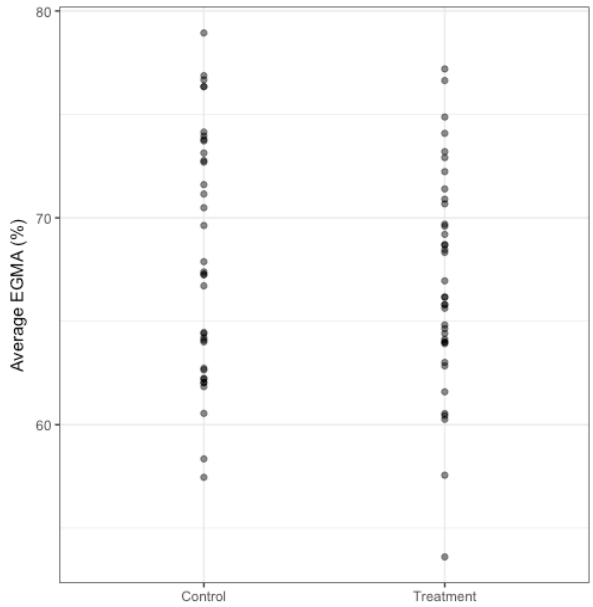
In this report, some potential areas where the control and treatment schools may differ are already visible. This includes in-school programs and girls' access to bicycles, which is associated with better scores on learning assessments, and the reported language of instruction at school. However, children in the sample appear to be similar in age, characteristics, learning assessment test scores, and barriers across the treatment and control groups as of the baseline.

In section 4, we consider differences in the average EGRA and EGMA score distributions across the treatment and control schools. Although the distribution of EGMA scores is similar across treatment and control schools, there are noticeable differences in the EGRA score distribution across the treatment and control groups. A handful of the treatment schools have substantially lower average EGRA performance than any of the control schools. This suggest that there may be systematic differences in the ways literacy is taught at these schools, relative to other locations in the sample.

Figure 4.7: *Average EGRA Score by School*

Figure 4.8: *Average EGMA Score by School*





Future analysis will work to understand the driving factors leading to lower baseline performance in these locations, and to consider whether these locations are more or less responsive to the intervention than other treatment locations. Robustness checks at midline and endline evaluation will ensure that these locations, for which there are no directly comparable control locations, are not driving the results regarding the overall impact of the program. If they are seen to be driving the analysis, they will be dropped from the main evaluation and the implications of this will be discussed in detail.

Annex 12: Sampling Protocols for Field Work

The sampling framework spreadsheet is included in the accompanying documentation package for this report. The following set of sampling instructions was given to the baseline data collection prior to going into the field. This information was communicated both in writing as well as in training sessions delivered by the IGATE-T project team and the external evaluator.

Sampling of In School Girls

The sampling framework provides the number of beneficiaries that need to be selected from each grade of the school being visited. In grades 3 through 7, a total of 6 girls *from each grade* should be selected. We use n_{gender} to refer to the number of students being selected in each grade for a given gender. At the school, the total number of students in a grade of a gender is shown by N_{gender}^{grade}. To select the sample of girls to be included within each grade, the supervisor needs to obtain the rosters for all classes of that grade and follow the steps below.

- If $6 > N_{gender}^{grade}$: Then select all ($n = N$)
- If $6 < N_{gender}^{grade}$: Combine all the class lists for each grade. Using small pieces of papers, assign a number to each girl in the grade list (i.e if the numbers are not already on the list) then randomly pick from a hat or an invisible container until you reach n^{grade}. Repeat for each grade.

- It is important not to ask the school staff to conduct the randomized selection, though it is encouraged for you to do the selection in their presence.
- It is also recommended to conduct this in the same day as the surveys are being taken. This will minimize the chance for schools to try to replace the selected poor-performing students with better ones.

Since it may be the case that some girls who are selected cannot be contacted **after at least three attempts** to contact, it is suggested that a few additional girls are selected when the girls are being sampled to create a contingent list for each grade. These additional girls should only be contacted if the first 6 cannot be reached.

If there are not enough students to collect 30 girls from a specific school (6 girls in each of the 5 primary grades), it will be necessary to draw additional girls from larger schools nearby to make up for this deficiency. The nearby school must be in the same sample (control or treatment). If this is done, the girls should be drawn from the same grades as the girls missing from the original school to make sure the total sample size across all schools is not too small.

Using the class roster, and information from school administration, the supervisor will need to identify the girls that have been selected in the previous step, and have a brother in the school who attends to one of the grades included in the survey (grades 3 - 7). This forms the basis for the boys sample in each grade. These are the only boys that should be selected for the surveys.

Sampling of teachers for Classroom Observation and Self-Reflection

For teachers, one teacher from grade 3 and one teacher from grade 6 must be chosen randomly from each school. You will aim to observe, on average, 1 maths lesson and one english lesson. Try to avoid having correlation between what grade the teacher teaches and what lesson you observe. You can flip a coin to see which teacher will teach each lesson. If heads, observe the grade 3 teacher for a math lesson and the grade 6 teacher for the english lesson. If tails, do the opposite.

Identifying Form 1, Form 2, and Out of School (OOS) girls

The school records are the first step to identify out of school girls. To perform this, the following rosters are required:

- Grade 6 students from 2 years ago
- Grade 6 students from 3 years ago
- Grade 6 students from 4 years ago

Look at the grade 6 list from 2 and three years ago, and select 28 girls of this age (age 13 - 17, and have completed grade 6) to identify girls who have been in primary school and are now expected to be in secondary school or out of school. **If the class rosters are not available, you should direct attention to any other historical records that the school has.** For example, school payment records or the school's enrollment book would provide you with names of past students, but you should also ask the school head about any other forms of historical records that would be relevant. Add all girls in these records to a potential list of secondary school/ OOS girls. If this doesn't generate enough girls, then records about girls who were in grade 6 four years ago should also be added to the list.

Ideally, this will identify 13 girls from Form 1 and Form 2, and 15 out of school. If you are still short on girls, the following steps can be taken to identify additional OOS or Form 1/ Form 2 girls.

If there are still insufficient OOS girls from the historical school records:

1. During interviews with the village head and other community leaders, ask them to identify girls 13-17 who reside in the school's catchment area but are not in school, and add these girls to the list of OOS girls. If there are more than enough girls identified this way to fill the shortage from the historical primary school records, then randomly select from the list provided by the village head in the same way as other surveys (numbering all girls and choosing numbers out of a hat).
2. If there are still not enough girls identified after visiting the village leaders, then if an OOS girl is identified during HH surveys, include this girl in the sample of OOS girls until you have 15 girls from that catchment area.

If there are still insufficient Form 1 and Form 2 girls from the historical school records, then approach the heads of the secondary schools in that catchment area to get the current secondary school rosters. Number the girls on the lists of current F1 and F2 students and draw numbers out of a hat until you have 13 girls from the historical primary records and the current secondary rosters combined.

If possible, it will likely be necessary to select a few additional girls from the historical records to have a contingency list that will only be contacted if you cannot contact 28 girls. If still not enough girls can be found using these steps, then it may be necessary to over sample in larger districts to ensure the overall sample size is achieved. The cover sheets for catchment areas provided to supervisors will highlight this.

Identifying Households

Households are identified by selecting the household associated with the girls selected from primary school rosters, and selecting the households associated with girls selected from the historical grade 6 rosters. It may be the case that multiple girls are part of the same household, but in this case the household would have the same household ID, but the household ID would be connected with multiple students.

Note that the household survey directs questions to the head of household as well as the primary caregiver of each girl in the sample. The primary caregiver of the child is defined as the adult person who mainly cares for the girl on a day to day basis. If the child lives in a child-run household, meaning there is no adult living there regularly, the girl's primary caregiver may be someone who monitors the child remotely. If this is still not applicable, and no adult (or older sibling/relative) caregiver can be identified, then the primary caregiver may be the child.

Identifying Focus Groups

There are a total of 36 FGDs held in the 4 districts (9 in each district).

Recruiting Instructions for Mothers and Fathers FGDs (2/district for mothers, 1/district for fathers):

10-15 participants for each group, with preference parents of girls aged 8-16 and a broad range of parent ages. Parents should be selected purposefully from the HH surveys and local mother's groups to include parents of girls who are out of school and other marginalized girls (e.g. female-headed HH, HIV-affected HH, girls with disabilities, married girls, girls with children, ethnic groups, etc.). There should be separate FGDs for mothers and fathers to facilitate better group dynamics. Community leaders should be avoided for these groups.

Recruiting Instructions for In-School Girls FGDs (2/district):

10-15 participants for each FGD. Of the two groups in each district, there should be one that focuses on girls aged 8-11 and one that includes girls ages 12-15. Both groups should be recruited from different households (including girls at risk of dropping out) from the HH survey to get a mix of more and less vulnerable girls (examples given above).

Recruiting Instructions for OOS Girls FGDs (2/district):

10-15 participants per group, ages 12-16 only (with girls across this age group). These girls can be recruited from the HH surveys, should come from different households, and must have completed grade 6.

Recruiting Instructions for In-School Boys FGDs (1/district):

10-15 participants per group, ages 8-12. These boys should come from different households.

Recruiting Instructions for Community Leader FGDs(1/district):

10-15 participants per group, selected with guidance from the village head and school head. Members of this group should not already be part of a KII.

Identifying Key Informant Interviews

KIIs will be conducted by trained interviewers, and both the FGDs and KIIs will be recorded with the permission of the respondents. After each interview is completed, the recording should be interpreted and transcribed. All material including notes, recordings, transcripts, and translations should be provided to the external evaluator after completion. Each KII is intended to a specific person or role in the community, so recruiting for these interviews is involves simply contacting the specific person/people of interest.

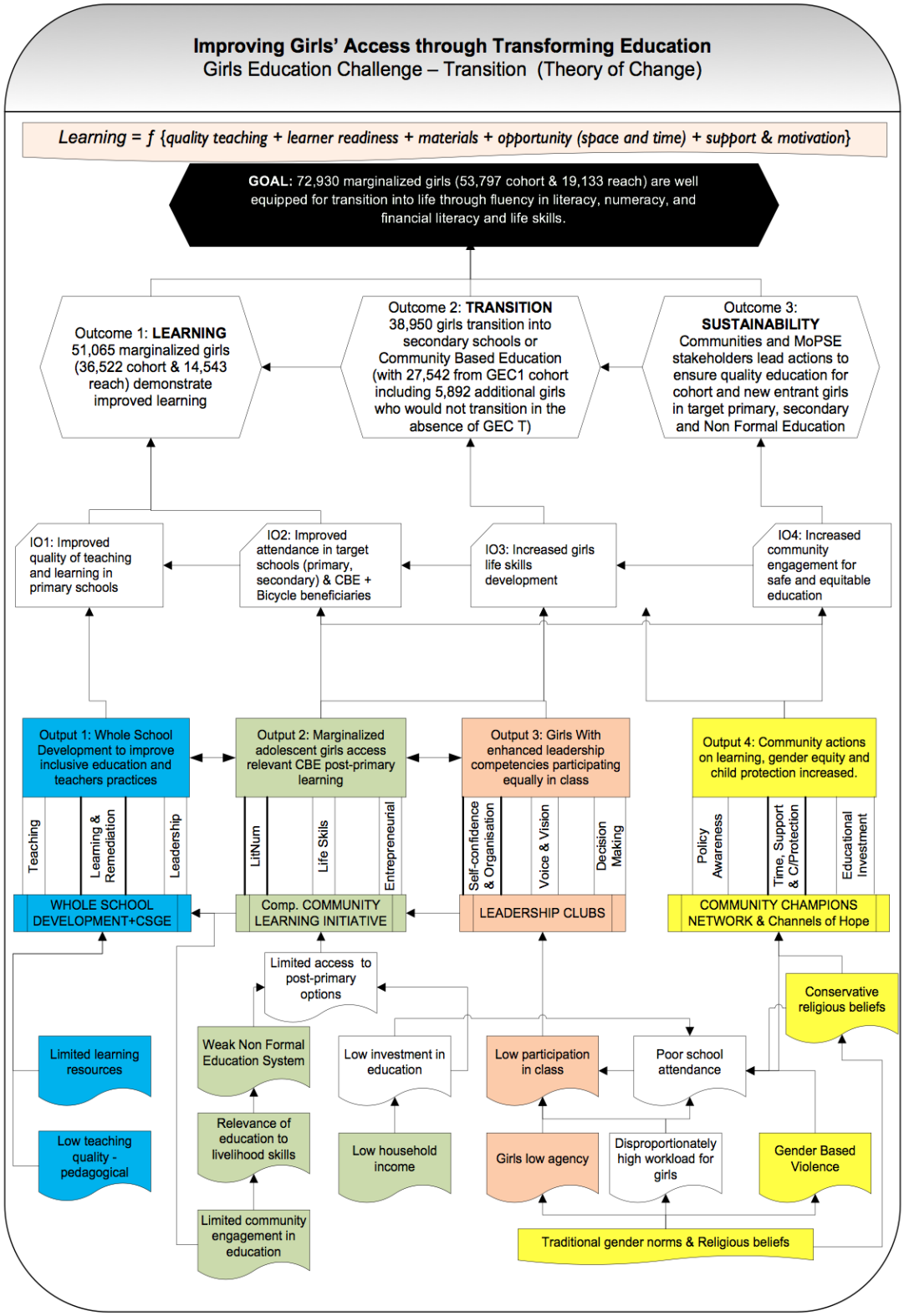
Annex 13: Sustainability Scorecard and Stakeholders

Stakeholder	Description
Community	From the household/family level to broader community members, and especially leaders; including structures, groups, clubs, local businesses and other agents of change that the project establishes/works with to support girls.
School	Includes government run/funded pre-primary, primary and secondary schools, vocational and other training providers and established nonformal education providers. This may also include private or community based/owned schools.
System	The education system at district, provincial and national levels, ranging from policy to delivery. This includes staff and units/departments the project may work and interact with, regulations within which the project works or may be aiming to influence. This may include private markets, or a broader set of networks that influence social norms.

Rating	Community	School	System
0 – Negligible (null or negative change)	No evidence that community members accept the project approach, and changes in attitude or engagement with activities very limited. Stakeholders may even reject key aspects of project. Project not working effectively to build consensus or support, but focus only on activity implementation.	No evidence that school stakeholders accept the project approach, and changes in attitude or engagement with activities very limited. Stakeholders may even reject key aspects of project. Project not working effectively to build consensus or support, but focus only on activity implementation.	Very limited and ineffective engagement with system level stakeholders, including district or national authorities. Authorities do not see relevance of intervention. There is limited alignment to existing systems / structures and policies, or limited understanding by project of how it intends to influence change at this level.
1 – Latent (changes in attitude)	Community stakeholders (including parents, community leaders, and religious leaders) are developing knowledge and understanding and demonstrate some change in attitude towards girls' education. Appropriate structures are being put in place at community level, and there is some level of willing engagement and/or participation from the community.	School leadership, teachers and other stakeholders are developing knowledge and understanding and demonstrate some change in attitude towards girls' education in general and towards specific teaching practice and approaches, and the way schools are managed.	Local, district, and national officials are involved in delivery and/or monitoring; developing knowledge, and showing change in attitude towards girls' education and project focus areas. Project aligns with specific policy, systems and departments. Project's evidence is being shared with relevant stakeholders, including broader networks of organisations.
2 – Emerging (changes in behaviour)	There is evidence of improved practice and support for girls' education in specific ways being targeted by project. Change is not universally accepted among targeted stakeholders, but support is extending. Project staff and resources play key role in driving change, although there are activities in place to mobilise funding/other resources.	There is evidence of improved support for girls' education in classroom practice, teacher management, and school management being targeted by project. The improved practice is not universal, but is extending. Project staff and resources play key role in driving change. School leaders understand resource implications and mobilising funds locally.	There is evidence of improved capacity of local officials to support girls' education through existing functions, adopting new approaches. Examples of support to project schools are being established. Government at local and/or national level has engaged with and understood evidence from the project. Resource implications are being made clear.

3 – Becoming established (Critical mass of stakeholders change behaviour)	Key community leaders and a critical mass of stakeholders are convinced of the benefits and have the capacity to lead and deliver changed practice independently. Financial and other resources are increasingly being mobilised locally. Project staffing and resources still play role but there is potential for this to be phased out.	Head teacher and critical mass of school staff and stakeholders convinced of the benefits and have the capacity to deliver changed practice independently. To the extent possible, existing financial and other resources are being used or mobilised. Project staffing and resources still play role but there is potential for this be phased out.	Authorities demonstrate active use of project evidence, uptake of specific aspects of the project approach and have a growing capacity to support girls' education locally or beyond. This may include limited support to a delivery model without fully adopting within a national system. There is an increase in allocation of resources and evidence of planning for required resource to upscale.
4 – Established (changes are institutionalised)	The specific change in practice and attitude is now well established. Communities demonstrate independent ability to act without support from project, are able to further develop existing and new initiatives and secure funding to respond to their local needs to sustain and build on the changes that have taken place.	The specific change in practice and attitude is now well established with school level systems to support this; schools demonstrate independent ability to act without support from project, have allocated and mobilised financial and other resources and are able to develop further initiatives to respond to local needs to sustain and build on the changes that have taken place.	An approach or model is shown to work at scale and is being adopted in national policy and budget as appropriate, and/or incorporated into key delivery systems (e.g. for teacher training, curriculum, school management etc.). There is an established track record of financial support.

Annex 14: Theory of Change Diagram



Annex 15: Supplementary Tables - District Breakdowns of Findings

Outcome Indicators	Chivi	Insiza	Mangwe	Mberengwa	Overall
Learning (Girls)					
Literacy Total	40.7	34.2	40.7	37.5	39.1
Numeracy Total	57.0	52.4	60.2	57.2	57.1
Financial Literacy (OOS)	17.6	14.0	15.7	9.9	14.9
Transition (Girls)					
Reported negative transition outcome from last year	10.1%	14.9%	28.7%	12.2%	15.1%
Intermediate Outcomes					
Students report frequent teacher absences	24.6%	36.0%	24.1%	23.3%	25.8%
Missed 3+ days in last month	13.1%	11.8%	16.1%	15.7%	14.0%
YLI Score (out of 84)	56.9	56.2	55.6	54.0	55.9
Households Contributing to Secondary School Fees	73.5%	70.8%	68.6%	67.9%	69.6%

Annex 16: Supplementary Tables - Literacy and Numeracy Score Details

Grade 3

Foundational Literacy Skills Gaps - Grade 3

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	**49.68%**	**46.87%**	**2.81%**	**0.65%**
Familiar Word	**14.04%**	**24.41%**	**35.42%**	**26.13%**
Invented Word	**22.89%**	**28.73%**	**40.39%**	**7.99%**
Oral Reading Fluency	**12.10%**	**35.85%**	**40.39%**	**11.66%**
Comprehension	**74.95%**	**22.25%**	**2.59%**	**0.22%**
Comprehension + Analytical Skills	**-**	**-**	**-**	**-**
Comprehension + Inferential Skills	**-**	**-**	**-**	**-**
Short Essay	**-**	**-**	**-**	**-**

Foundational Numeracy Skills Gaps - Grade 3

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	0.86%	5.40%	27.43%	66.31%
Quantity Discrimination	3.24%	7.99%	34.34%	54.43%
Missing Numbers	5.18%	47.52%	45.57%	1.73%
Addition	5.83%	30.02%	57.24%	6.91%
Subtraction	12.10%	43.84%	42.12%	1.94%
Word Problems	25.05%	38.23%	25.05%	11.66%
Advanced Multiplication, Division	-	-	-	-
Algebra	-	-	-	-
Data Interpretation	-	-	-	-

Grade 4

Foundational Literacy Skills Gaps - Grade 4

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	52.29%	42.70%	4.58%	0.44%
Familiar Word	10.68%	14.38%	29.85%	45.10%
Invented Word	17.65%	24.18%	42.05%	16.12%
Oral Reading Fluency	9.59%	18.74%	42.70%	28.98%
Comprehension	57.95%	34.42%	7.41%	0.22%
Comprehension + Analytical Skills	52.33%	36.05%	9.30%	2.33%
Comprehension + Inferential Skills	-	-	-	-
Short Essay	-	-	-	-

Foundational Numeracy Skills Gaps - Grade 4

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	1.09%	3.05%	19.39%	76.47%
Quantity Discrimination	2.40%	6.97%	26.58%	64.05%
Missing Numbers	3.92%	39.65%	51.85%	4.58%
Addition	3.70%	20.92%	61.66%	13.73%
Subtraction	6.32%	35.73%	53.16%	4.79%
Word Problems	33.77%	25.05%	28.10%	13.07%
Advanced Multiplication, Division	52.69%	46.24%	1.08%	0.00%
Algebra	-	-	-	-
Data Interpretation	-	-	-	-

Grade 5

Foundational Literacy Skills Gaps - Grade 5

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	42.27%	54.55%	3.18%	0.00%
Familiar Word	8.86%	9.55%	20.68%	60.91%
Invented Word	14.77%	20.23%	44.09%	20.91%
Oral Reading Fluency	6.59%	13.86%	41.14%	38.41%
Comprehension	46.82%	41.59%	10.91%	0.68%
Comprehension + Analytical Skills	31.25%	38.54%	28.13%	2.08%
Comprehension + Inferential Skills	-	-	-	-
Short Essay	-	-	-	-

Foundational Numeracy Skills Gaps - Grade 5

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	1.59%	1.14%	10.91%	86.36%
Quantity Discrimination	2.27%	2.50%	19.77%	75.45%
Missing Numbers	3.86%	32.27%	59.32%	4.55%
Addition	3.64%	9.32%	59.77%	27.27%
Subtraction	6.82%	20.00%	65.45%	7.73%
Word Problems	14.09%	37.95%	35.45%	12.50%
Advanced Multiplication, Division	41.90%	52.38%	5.71%	0.00%
Algebra	-	-	-	-
Data Interpretation	-	-	-	-

Grade 6

Foundational Literacy Skills Gaps - Grade 6

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	40.84%	51.66%	7.28%	0.22%
Familiar Word	3.53%	6.62%	15.67%	74.17%
Invented Word	8.39%	15.01%	41.94%	34.66%
Oral Reading Fluency	3.31%	9.05%	25.39%	62.25%
Comprehension	38.41%	39.74%	20.53%	1.32%
Comprehension + Analytical Skills	20.63%	43.65%	31.75%	3.97%
Comprehension + Inferential Skills	50.45%	47.53%	1.57%	0.45%
Short Essay	-	-	-	-

Foundational Numeracy Skills Gaps - Grade 6

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	0.88%	0.00%	7.51%	91.61%
Quantity Discrimination	1.10%	2.21%	11.04%	85.65%
Missing Numbers	1.77%	32.23%	60.26%	5.74%
Addition	1.10%	4.19%	44.59%	50.11%
Subtraction	2.65%	17.00%	59.38%	20.97%
Word Problems	9.49%	32.89%	36.20%	21.41%
Advanced Multiplication, Division	19.82%	46.85%	32.43%	0.90%
Algebra	83.86%	15.92%	0.22%	0.00%
Data Interpretation	-	-	-	-

Grade 7

Foundational Literacy Skills Gaps - Grade 7

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	36.83%	54.55%	8.39%	0.23%
Familiar Word	1.40%	5.13%	10.72%	82.75%
Invented Word	6.06%	12.12%	33.80%	48.02%
Oral Reading Fluency	1.17%	6.53%	14.92%	77.39%
Comprehension	20.98%	37.76%	37.53%	3.73%
Comprehension + Analytical Skills	4.21%	42.11%	45.79%	7.89%
Comprehension + Inferential Skills	27.53%	66.35%	5.88%	0.24%
Short Essay	-	-	-	-

Foundational Numeracy Skills Gaps - Grade 7

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	0.23%	0.23%	3.96%	95.57%
Quantity Discrimination	0.70%	0.70%	7.69%	90.91%
Missing Numbers	1.40%	15.85%	64.57%	18.18%
Addition	0.23%	3.03%	29.84%	66.90%
Subtraction	0.93%	10.26%	47.32%	41.49%
Word Problems	4.66%	17.95%	40.56%	36.83%
Advanced Multiplication, Division	9.76%	24.39%	59.35%	6.50%
Algebra	75.18%	24.35%	0.47%	0.00%
Data Interpretation	-	-	-	-

Form 1

Foundational Literacy Skills Gaps - Form 1

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	33.73%	54.51%	8.47%	1.61%
Familiar Word	2.55%	2.55%	6.67%	88.24%
Invented Word	6.47%	7.84%	27.65%	58.04%
Oral Reading Fluency	2.75%	2.94%	11.57%	82.75%
Comprehension	25.10%	38.04%	32.94%	3.92%
Comprehension + Analytical Skills	4.09%	36.36%	51.36%	8.18%
Comprehension + Inferential Skills	29.03%	64.41%	6.36%	0.20%
Short Essay	10.73%	88.87%	0.40%	0.00%

Foundational Numeracy Skills Gaps - Form 1

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	0.78%	0.39%	3.73%	95.10%
Quantity Discrimination	1.76%	0.39%	10.78%	87.06%
Missing Numbers	2.16%	17.84%	68.24%	11.76%
Addition	1.18%	2.35%	33.53%	62.94%
Subtraction	1.37%	9.80%	51.37%	37.45%
Word Problems	7.84%	22.35%	36.86%	32.94%
Advanced Multiplication, Division	12.63%	25.26%	60.00%	2.11%
Algebra	67.89%	30.49%	1.63%	0.00%
Data Interpretation	87.78%	12.22%	0.00%	0.00%

Form 2

Foundational Literacy Skills Gaps - Form 2

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	38.91%	51.01%	8.47%	1.61%
Familiar Word	2.62%	1.41%	6.25%	89.72%
Invented Word	5.65%	8.27%	27.42%	58.67%
Oral Reading Fluency	2.02%	2.62%	10.08%	85.28%
Comprehension	22.98%	32.46%	37.90%	6.65%
Comprehension + Analytical Skills	4.68%	32.77%	51.49%	11.06%
Comprehension + Inferential Skills	26.14%	66.39%	7.26%	0.21%
Short Essay	11.25%	88.75%	0.00%	0.00%

Foundational Numeracy Skills Gaps - Form 2

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	1.41%	0.20%	5.65%	92.74%
Quantity Discrimination	1.41%	0.81%	13.51%	84.27%
Missing Numbers	2.82%	21.17%	63.51%	12.50%
Addition	1.61%	3.63%	36.09%	58.67%
Subtraction	2.62%	9.88%	48.79%	38.71%
Word Problems	7.26%	25.20%	34.88%	32.66%
Advanced Multiplication, Division	11.30%	23.48%	61.74%	3.48%
Algebra	51.47%	41.81%	6.72%	0.00%
Data Interpretation	88.84%	10.32%	0.84%	0.00%

Out of School

Foundational Literacy Skills Gaps - OOS

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Letter Sound Identification	59.81%	36.14%	2.49%	1.56%
Familiar Word	14.33%	8.41%	18.38%	58.88%
Invented Word	20.25%	18.38%	33.64%	27.73%
Oral Reading Fluency	14.02%	11.84%	22.74%	51.40%
Comprehension	50.47%	33.33%	14.02%	2.18%
Comprehension + Analytical Skills	17.74%	40.32%	27.42%	14.52%
Comprehension + Inferential Skills	-	-	-	-
Short Essay	-	-	-	-

Foundational Numeracy Skills Gaps - OOS

Literacy Subtask	Non learner (0%)	Emergent learner (1-40%)	Established learner (41-80%)	Proficient learner (81-100%)
Number Identification	4.05%	2.49%	10.59%	82.87%
Quantity Discrimination	4.36%	3.43%	16.51%	75.70%
Missing Numbers	6.85%	35.51%	52.96%	4.67%
Addition	6.54%	11.21%	40.50%	41.74%
Subtraction	9.35%	19.31%	48.91%	22.43%
Word Problems	15.26%	21.50%	33.02%	30.22%
Advanced Multiplication, Division	40.48%	38.10%	21.43%	0.00%
Algebra	-	-	-	-
Data Interpretation	-	-	-	-

Annex 17: Supplementary Tables - Boys Learning Outcomes by Grade

Boys Average EGRA Score by Grade

Grade	Intervention Group Mean	Control Group Mean	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	19.0	16.5	17.5	16.0
Grade 4	25.0	20.2	17.7	17.7
Grade 5	28.0	28.1	20.4	21.1
Grade 6	35.6	35.1	22.5	20.2
Grade 7	42.5	41.7	24.0	19.9

Boys Average EGMA Score by Grade

Grade	Intervention Group Mean	Control Group Mean	Intervention Group Standard Deviation	Control Group Standard Deviation
Grade 3	46.7	45.5	18.4	20.9
Grade 4	52.7	54.1	21.3	18.6
Grade 5	61.3	57.7	16.7	18.4
Grade 6	70.5	66.6	16.9	21.0
Grade 7	68.2	76.8	26.6	22.1

Annex 18: Supplementary Tables - Teacher Self Assessments

The following table summarizes questions given to teachers to have them assess their awareness and comfort levels with different teaching practices. As shown in the table over 70% of teachers in both treatment and control schools are not only aware of each of these concepts, but also claim they can provide a concrete example of when they have applied it in their teaching.

Concept	Aware of Concept[18]		Feels Capable Applying Concept[19]		Can Provide Example of Applying Concept[20]	
	Intervention Schools	Control Schools	Intervention Schools	Control Schools	Intervention Schools	Control Schools
Four literacy skills	79.0%	82.7%	76.5%	70.7%	70.4%	77.3%
Reflecting student's context in teaching and learning literacy	93.8%	92.0%	84.0%	82.7%	75.3%	80.0%
Importance of fluency in mother tongue	92.4%	97.3%	85.2%	92.0%	81.5%	82.7%
Use of age and context appropriate texts	92.6%	89.3%	81.5%	84.0%	74.0%	78.7%
Importance of family to support numeracy	92.6%	93.3%	76.5%	76.0%	75.3%	76.0%
Actively engaging students in learning numeracy	90.1%	96.0%	86.4%	90.7%	77.8%	85.3%
Reflecting student's context in teaching and learning numeracy	88.9%	88.0%	84.0%	81.3%	81.5%	82.7%
Developing concepts and practices relevant to future education/employment	82.7%	89.3%	76.5%	78.7%	70.4%	72.0%

[18] This refers to teachers who report being "very aware" of the concept.
[19] This refers to teachers who report being "very able" to apply the concept.
[20] This refers to teachers who are able to give a practical account of how they applied the concept in lessons in the last month.

Annex 19: Supplementary Tables - Gender Differences in Youth Leadership

Gender differences are not consistent across all YLI subquestions, as discussed in section 5 of this report. However the following table highlights which characteristics in particular exhibit gender differences. On questions about being a leader in the community leader, about accepting responsibility for decisions, and about reporting unfairness, boys are more likely than girls to agree. However, girls are more likely to like trying new activities and to feel comfortable answering questions. These gender differences in leadership dimensions should be considered when the project designs interventions to develop the leadership skills of marginalized girls.

Gender Differences Across Youth Leadership Index Questions

Prompt	Average Score - Boys (/ 4)	Average Score - Girls (/ 4)	Statistically Different
Interested in Being a Community Leader	2.66	2.45	Yes***
Able to Organize Peers	2.39	2.44	No
Likes to Try New Activities	2.10	2.21	Yes***
Friends Ask Them for Advice	2.11	2.09	No
Recognize Skills in Others	2.15	2.21	No
Comfortable Responding to Questions	2.56	2.70	Yes***
Contributes Ideas to Discussions at Home	2.25	2.25	No
Asks Clarifying Questions	2.58	2.62	No
Can Describe Thoughts to Others	2.38	2.32	No
Their Actions Set Good Example	2.60	2.62	No
Considers Possible Outcomes of Decisions	2.43	2.37	No
Accepts Responsibility for Decisions	2.45	2.34	Yes**
Recognizes Choices can Affect Future	2.52	2.50	No
Uses Actions to Show what is Important to Them	2.48	2.51	No
Can Explain Things Differently if not Understood	2.54	2.50	No
Encourage Others to Get Involved in Community	2.27	2.19	No
Cooperates with Others at Home	2.86	2.82	No
Reports Unfair Treatment to an Adult	2.97	2.86	Yes*
Willing to Work Hard Towards Goals	2.98	2.93	No
Better Able to Finish Tasks When They Plan Ahead	2.56	2.56	No
Tries to Understand Cause of Problems Before Solving	2.54	2.50	No

Annex 20: Life Skills Spreadsheet

Attached with IGATE-T Baseline Report documents package.

Annex 21: External Evaluator Declaration

Name of Project: IGATE-T Baseline Evaluation
Name of External Evaluator: Limestone Analytics, Inc
Contact Information for External Evaluator: cotton@limestone-analytics.com; 945 Princess St., Suite 112, Kingston ON, Canada, K7L 0E9
Name of Lead External Evaluator: Christopher S. Cotton, Ph.D.
Names of all members of the Limestone Analytics external evaluation team: Christopher Cotton, Ardyn Nordstrom, Jay MacKinnon, Bahman Kashi, Brandy Jones

I, Christopher S. Cotton, on behalf of Limestone Analytics, 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 (CSC)
- All data analysis was conducted independently and provides a fair and consistent representation of progress (CSC)
- Data quality assurance and verification mechanisms agreed in the terms of reference with the project have been soundly followed (CSC)
- The recipient has not fundamentally altered or misrepresented the nature of the analysis originally provided by Limestone Analytics (CSC)
- All child protection protocols and guidance have been followed (CSC)
- Data has been anonymised, treated confidentially and stored safely, in line with the GEC data protection and ethics protocols (CSC)

Christopher S. Cotton, Ph.D. CSC
Limestone Analytics
March 28, 2018

Annex 22: Project Management Response

This has been completed by the project team and WVUK.

What is the project's response to the key findings in the report? Make sure to refer to main conclusions (Section 6)

This is an opportunity to describe where the project feels the evaluation findings have confirmed or challenged existing understanding and/or added nuance to what was already known. Have findings shed new light on relationships between outputs, intermediate outcomes, and outcomes and the significance of barriers for certain groups of children – and how these can be overcome?

This should include critical analysis and reflection on the project theory of change and the assumptions that underpin it.

1. **Learning (formal schooling)** - Confirms and validates underpinning factors of the project theory of change assumptions of a large variability of learner competencies across and within grades, including a significant proportion who struggle with English language comprehension and or number sense upon which to build higher levels of literacy and numeracy competencies – a majority of learners do not reach these levels at the end of schooling, with some children remaining non-learners throughout. Trends regarding literacy indicate low comprehension and analysis scores that struggle to rise even as students grow older. Additionally, further analysis and a look specifically at how the language of instruction effects reading comprehension scores rather than the overall EGRA score may provide additional insight into learning outcomes and inform literacy-based interventions with teachers. Additionally, numeracy trends indicate students continue to struggle with tasks above addition and subtraction. This reinforces the critical need to improve the quality of teaching and learning practices, and validates IGATE-T's whole school development approach. Furthermore, it seems low pass rates and high proportions of 'struggling learners' have been normalized and the result is teacher, head and parent attitudes that reflect lower expectations of learners (and learners of themselves over time). Changing the situation will require an attitude change that expects high learning outcomes of all learners. Parents/communities do indicate disappointment with trends in pass rates etc but seem defeated in their belief that the situation can be changed. This may be a uniquely Zimbabwean consideration in the GEC where academic trends (especially socio-economic/rural/urban equity) are backwards. The breakdown of literacy and numeracy subtask scores further indicate that learners face challenges with English and numeracy comprehension. The low EGRA Letter Sound Identification scores across all grades should be assessed to understand if the relative lack of change in scores is due to the way in which the assessment was administered, or if it is related to language acquisition assumptions.

2. **Learning (classroom practices)** - In terms of the Theory Change, a key stage is the improvement of teachers' classroom practices, which leads to improved learners' foundational literacy and numeracy skills. The report does not cover any findings from the classroom practice observations, which could illuminate current classroom practice. Exploratory analysis utilizing the baseline's qualitative data may provide insight into this.

3. **Learning (dis-aggregation by sex**) - Trends observed on literacy and numeracy whereby girls perform better than boys may require more of a focus on the overall level of scores rather than

comparison with boys. Although girls outperform boys on literacy and numeracy, the scores remain very low and there is room for improvement, meaning learning outcomes still remain important as progression and transition outcomes in measuring program success. Furthermore, the boys sample point is quite small in comparison and not sufficient for robust statistical comparisons. Considerations will be made for increasing the boys sample point during the midline to provide a more robust sample for understanding gendered associations with learning. The overall low scores of both boys and girls confirm the project's focus on whole school development so that all learners can benefit.

4. **Teacher absenteeism** is concerning in terms of frequency – ToC assumption hinges on teacher presence to apply learning from TPD in classrooms. The project therefore recommends more frequent monitoring and analysis of teacher presence.

   IGATE is developing strategies to have a more nuanced approach to the work in schools acknowledging the variability in school performance. Baseline interrogation of the variables associated with 'school effects' on learning and transition measures as well as intermediate outcomes of teaching quality and attendance will be applied to consider strategies that may need adaptation to particular school types. The project is considering how to approach this while maintaining fidelity of implementation by having clear criteria to apply in classifying schools and well-defined strategies to be consistently applied.

5. **Learning (predictors)** It is interesting that there is no observed effect of household chores on learning outcomes at baseline. Suggest this is continually monitored – may be more relevant when higher progression in learning (i.e. may be masked by general low performance and be more of an issue if missed foundational learning is overcome). Household chores may also be viewed as a transition barrier - social norms around chore allocations are as preparation for marriage. Households that allocate higher volumes of chores to girls, and particularly orphans, are also likely to have low education aspirations for the individual girls assigned with these chores. It is also interesting to note that none of the factors examined explained the large variability in learning outcome scores, which suggests that there are other important factors affecting learning. It should also be noted here that no positive predictors of learning were identified for girls; however, many of the positive predictors from IGATE phase 1 were not included in the consultants' analysis. These areas should be further explored to understand the sustainability measures and legacy effects.

6. **Learning (Out of School Girls)** - The failure to identify enough OOS girls in the sample points may not be due to a lack of OOS girls in IGATE-T communities. So far, current project experience in implementation indicates that communities are sometimes reluctant to disclose information about OOS adolescents due to child protection issues and concerns about negative repercussions, such as being reported to the police. The sensitivity around identifying OOS adolescents requires a lot of trust to be built between community members and the person requesting the information to receive an accurate response. During data collection, enumerators interacted with community members for a very short period which was not enough to earn the communities' trust. This has been tested through CBE pilot testing conducted in two villages post baseline data collection. During these experiences, large numbers (up to 60) of OOS adolescents were identified in a single school catchment area. It should also be mentioned that the demographics of the OOS sample are different with regards to the percentage of OOSG who are mothers in DHD data. The study cohort included only 10% young mothers, while the DHS points out rates ranging between 18% and 30% for the overall population of adolescents in these districts, and a much higher prevalence

among poor girls (34%). It is unclear if this was due to sampling procedures or if a cultural bias regarding young mothers as 'adults' resulted in a lack of identification of them for learning opportunities. This will need to be further explored as the OOS population is mobilized for the CBE activities. Regarding the OOS girls learning scores, it is interesting that while the OOS scores are similar to the grade 4/5 in most reading sub-tasks, it is higher in comprehension tasks (somewhere between grade 6 and 7). Results are similar with math scores where most of the OOS math sub-task scores are similar to the grade 4/5 scores, it is between grade 6 and 7 in word problems. This may mean that OOS girls have more opportunities to practice these applied/analytical tasks than their in-school counterparts. This will need to be further explored for better understanding.

The project's planned interventions for building teacher capacity in literacy and numeracy instruction and inclusive education through whole school development, and incorporating literacy and numeracy activities in leadership clubs and CBE interventions will help address these challenges. The project will need to consider if the learning materials that have been developed will require further modifications to better target and strengthen the literacy and numeracy skills learners consistently struggle with, and will need to consider if additional teacher professional development support will be required to improve ESL teaching methodologies and increase learner understanding of the language of instruction. The evaluation results regarding teacher absenteeism, low teacher training in gender integration, and inconsistent implementation of student-centred teaching methodologies confirm the project's assumption on barriers to learning resulting from low teaching quality. These results indicate that the project's whole school development interventions to improve inclusive education and teaching quality are relevant for the context and could be key to improve learning outcomes.

Results regarding the OOS girls' financial literacy scores will likely need to be reassessed as there are reports from the field that the test was not translated into local language prior to its administration, resulting in each enumerator translating "on-the-go", possibly resulting in different nuanced questions being asked, affecting their scores.

Results showing that scoring higher on self-reported measures of leadership skills (Youth Leadership Index) is associated with better performance on literacy and numeracy assessments also confirms the TOC's underpinning assumption that increasing girls' agency can lead to improvements in learning. Increasing opportunities for girls to practice leadership skills through the in-school and community based leadership clubs, and integrating leadership skills development in other project interventions will be critical.

Results confirmed that the critical transition stage is more from grade 7 to form 1 rather than grade to grade transition. And deviation is more popular from grade seven and beyond. Strengthening commitment of secondary schools to provide remedial support to learners, create more time to build leadership competencies and encourage participation of girls and boys at risk of drop out is key to reduce the number of learners leaving school.

Finally, the lack of in-depth qualitative analysis restricts our understanding of 'how' and 'why' with regards to certain trends. Because the evaluation report only includes qualitative touch-points, we miss the full depth and breadth of insight that should be garnered through open-ended exploratory qualitative analysis. There may be key trends that we are missing because we did not pre-program for them in the quantitative analysis.

IO 4.4 Strengthening community education on gender equity and GBV as it has progressive impact on the girl child as they grow older as highlighted by the baseline findings on (girls being less likely than boys to

progress to secondary school and fall behind with regard to progression) Through challenging community and traditional leaders on cultural and social norms that hamper on girls education, the project is progressively addressing issues of gender transformative norms towards lessening the chore burden on girls. Through the project cultural aspects and social norms that affect consistent attendance of school are also addressed as part of the package on engagement towards challenging harmful social/cultural practices. The project is also addressing issues of community investment in girls' education and the benefits thereof through availing equal opportunities for education. The baseline brings about evidence to the assumptions in the theory of change pertaining to the chore burden on girls and lack of equal access to education.

Findings on caregivers who are uneducated and the impact vis-a-vis on low performance on literacy and numeracy is a call for community involvement towards complimenting efforts to uneducated parents in assisting children with school work. Also the issue of teacher absents needs parental involvement in children's education and more so collective effort towards demanding for accountability towards drivers of teacher absenteeism and actions taken by the school or authorities to address such challenges.

IO 4.1 Issues of transition and birth registration in other districts and their significant impact especially towards transitioning of children to secondary schools not captured by the baseline report. While key findings are hinged on barriers to education and transition, issues that also contribute immensely to lack of transitioning or school dropouts are resultant from lack of identity documentation. To this end it is essential not to ignore the issue of birth registration as it has an impact on project Intermediate outcomes.

What is the project's response to the conclusions and recommendations in the report?

The management response should respond to the each of the External Evaluator's recommendations that are relevant to the grantee organisation (see Section 6). The response should make clear what changes and adaptations to implementation will be proposed as a result of the recommendations and which ones are not considered appropriate, providing a clear explanation why.

Does the external evaluator's conclusion of the projects' approach to gender correspond to the projects' gender ambitions and objectives?

Issue	Implication and Recommendation	Response
The enumerators failed to find enough CBE-eligible OOS girls at the sample locations to reach the data collection target.	It is not clear whether there is enough demand for CBE to justify the programming most sample locations. Expansion of CBE target population may help. Expanded OOS data collection into other districts is necessary. Conduct a more-thorough assessment of CBE demand in the treatment locations prior to implementation of the CBE program. This means collecting additional data on the OOS population in each region in which the CBE program will be implemented (including the Camfed districts) to assure that program resources are allocated efficiently and only in areas where they can reach enough people to justify the costs. Where possible, the target group for each CBE program may be expanded to include a wider range of participants, potentially including older individuals, active students, or males.	The CBE-eligible target group is particularly challenging to identify using typical survey techniques. OOS girls are among the most marginalized in the rural Zimbabwe context, highly likely to either be 'hidden" due to parental concerns of exposing non-enrolment or drop out to outside surveyors or 'hidden in plain sight' due to a social bias that perceives girls below 18 who are married as unacceptable to outsiders or who no-longer perceive 'wives' to need education and thus be 'out of school girls'. Additionally, households do not disclose status of out of school without reasonable trust as there was a point in time where schools engaged in 'debt collectors' to recover unpaid school levies. This population also is highly mobile. The survey protocol also had some initial flaws (assuming a random sample of 28 post primary girls would yield 15 OOS girls), which though corrected over the course of the survey, led to low capture of OOS populations. Data also indicates a high variability in OOS presence by school catchment (min 0; max 24) which is consistent with the project experience in community engagement sessions and collection of local transition rates at primary school level. IGATE has begun collecting additional data on the OOS population as part of planned community engagement and mapping processes and for the purposes of more refined targeting of CBE sites (school catchment areas). This process has also confirmed the interest of a wider range of participants, notably males and older individuals (18-25 year olds) who will not be excluded where CBE is established. Thus, the challenges of locating and administering surveys to OOS girls cannot be interpreted as an overall lack of demand for CBE, rather there is

		variability in demand by location and over time (i.e. in the absence of an intervention vs when CBE is offered). During the negotiation of the MEL framework it was agreed to integrate the OOS population within the wider learning and transition sample due to the anticipated challenges associated with reaching a sample size with statistical power for this unique target group. The project therefore recommends continuing with the protocol of treating the OOS population as a subset of the learning sample recognizing the limitations of statistical power of considering this as a separate sample at baseline. A thorough assessment of demand for CBE is ideal as the project teams are in a better position to identify out-of-school learners through community mobilization activities than through enumerators. Considering that data from the IGATE end line report suggests a higher number of OOS girls in project communities, there is potential to identify a sufficient number of out of school girls who are interested in attending the CBE centres in the sample locations. Even between the time of the baseline data collection and now, girls have dropped out as school years have transitioned, based on past transition data patterns. This has also been validated through a micro-pilot in two communities, post baseline, to identify OOS girls. As OOS programming, especially identification of OOS beneficiaries, requires more time to roll out it is recommended that we suspend conclusions on the demand for CBE until more data is available from the implementation staff. Once the community mobilization activities have been conducted and OOS girls enrolled in CBE courses, a booster sample of girls will be assessed with regards to their learning assessment data. This will allow for the comparison of learning outcomes across a more robust sample of OOS girls at the time of the midline.
Short window for implementation and evaluation.	There is less than 10 months between the end of baseline data collection and the beginning of midline data collection. This is very little time to implement interventions with the hopes of fundamentally changing attitudes, social norms, behavior and	Agreed. Midline report submission by March 2019 is particularly challenging as encompasses less than a school year of project implementation (considering program implementation started in Q4 or Feb 2018). The program theory of change assumes adequate time to nurture change in teachers' in-classroom delivery and sustain towards learner outcome changes. While adoption

	learning outcomes. We expect gains to be small between baseline and midline. Drawing conclusions about the impact of the program should be reserved until endline, which is currently scheduled for two years after midline. We recommend keeping the endline data collection as late in the program timeline as possible in order to provide the greatest time window for the benefits of the intervention to be realized.	of new teaching practices will be achieved within the 2018 academic year, the exposure time of learners to such is inadequate to achieve significant learning gains across the learning sample; this will also be influenced by the upcoming election, which will disrupt project implementation. The TPD material is designed to address foundational lit/num and builds from a very low base of early literacy and numeracy practice to catch up lagging learners across grades over a period of three years. IGATE proposes a negotiation on how the midline target may be applied at sub task and sub target group level to align with the strategy of building foundational literacy and numeracy. In-line with GEC recommendations, the endline will take place during the last year of implementation, during the same time-of-year as the baseline and midline (October to November) to account for seasonal fluctuations. In between the midline and endline, there will be an annual assessment during the non-evaluated year. As with IGATE, changes between baseline and midline will be contextualized with regards to implementation timing affecting exposure and dosage and used to inform adaptive management procedures to understand changes in the field as well as initial trends regarding key project indicators. Social transformation takes time to build awareness and subsequently driving communities towards action may need more time. Hence midline may not capture the envisaged change as communities may still be at knowledge level and working towards action.
Girls outperform boys on learning assessments, but underperform boys on transition measures	Addressing barriers that discourage girls completing school are likely to have the biggest impact for reducing gender inequality.	This confirms some assumptions in the theory of change and project design. However, even though girls may perform marginally better than boys, most youth do not comprehend what they are reading nor can they manage simple number sequences, and even at higher grades, many students are still non-learners in these critical tasks (see pages 77 and 78).Girls' learning therefore remains a critical challenge. Learning outcome issues are more generalized and related to systemic marginalization (at school

		and community level) and in lower grades girls and boys both experience challenges of missed foundational literacy and numeracy skills which persist as girls and boys continue in education. This affirms the whole school development approach to entire grades, girls and boys. There is need to strengthen engagement of communities on socio-cultural norms concerning gender equity and the chore burden on girls hampering their academic outcomes and transition.
There is substantial room for improvement in certain learning measures	Although girls tend to perform relatively well compared to boys on learning assessments, there is still ample room for improvement on most subtasks.	The findings confirm key challenges in foundational literacy and numeracy for both girls and boys. Of particular note are the high proportions of less than proficient or established learners in the comprehension subtask. The scores on letter sound subtask were equally low though IGATE aims to focus more on comprehension – literacy and meaning –rather than sounds. Of further note are the high proportion of less than proficient or established learners in the number sequence subtask. Also striking is the very high standard deviation – suggesting many learners scoring well below the average. The findings also confirm the particular challenge of the need for accelerated catch-up learning, especially as it is required for the many students who are not proficient, not just a small minority of non-learners.
Girls are more likely than boys to try new activities, but underperform on other measures of youth leadership that relate to learning	To the extent that interventions address leadership qualities that girls specifically struggle with, they are likely to be more effective at reducing gender inequality	● The YLI average score of 55.9 out of 84 does not indicate a ceiling effect, and therefore leaves sufficient room to see increases in scores. ● The focus of the YL interventions will be those qualities, which girls particularly struggle with. As was shown in the IGATE endline data, girls who participated in PW clubs had significantly higher EGMAavg scores ($p < 0.001$), higher EGRA3 – oral reading fluency - scores ($p< 0.001$), were more likely to be enrolled ($p = 0.008$), and had higher attendance rates ($p = 0.021$). Additionally, many of the girls interviewed at the endline spoke about the confidence

		gained through their participation in the PW clubs. By increasing their confidence, they were more confident and engaging learners, and also more likely to apply their confidence when faced with non-academic challenges, like unwanted advances from others or reaching out for menstrual hygiene management support from parents, teachers, and/or classmates. These experiences and data provide key insights into the criticality of developing leadership competencies both for learning and non-academic application. This will be further explored through IGATE-T.
The sampling methodology resulted in fewer boys than expected.	Expanding the sampling methodology	This can be pursued –funds permitting (evaluation budget line already under pressure and if baseline costs are replicated in midline and endline there will be insufficient funding to meet costs of evaluation). Given the insights into the gap in learning between boys and girls (an emerging piece of evidence to justify the contextual approach to gender) IGATE requests a additional budget for evaluation to be able to pursue an adequate sample of boys in subsequent evaluations. The project will consider expanding the selection methodology for boys at the midline.
There is complete overlap between the treatment locations of IGATE and IGATE-T.	This is not a particularly problematic concern that can be completely addressed. Most importantly, the program should be aware of this issue when interpreting results. To the extent possible, the External Evaluator will use across-location variation in the intensity of IGATE and IGATE-T treatment to distinguish the effects of the two programs. However, we do not anticipate that this variation will be substantial enough to fully distinguish the impacts of the two interventions	This observation is accurate though consistent with the guidance to consider the program as an extension. Overlap and effect noted and was established by design, in accordance with GEC-T guidance.

There is little overlap in the sample locations from the evaluation of the IGATE and IGATE-T projects. It may not be possible to estimate the aggregate impact of IGATE and IGATE-T across the entire duration of the two projects. The primary issue arises because we will not be able to confidently estimate changes in learning outcomes between the IGATE endline and IGATE-T baseline. There are also other issues related to the focus on a subset of districts and the inclusion of additional subgroups in the IGATE-T evaluation.	The External Evaluator will look to other data sources, besides the individual level surveys and learning assessments, to gain insights into the overall impact of the two projects. Enrolment records from a larger set of schools than just those included as sample locations may give insights into the overall impact that the programs had on transition. Another possibility is, during IGATE-T midline or endline, to collect data at additional locations that were included as sample points for IGATE; this would improve our ability to determine how learning outcomes changed between the two projects, and provide a more accurate assessment of overall program impact.	The limitations of the 4/9 district sample in the sensitivity of the evaluation framework to represent the full scope of IGATE is more concerning than the overlap with IGATE GEC1 treatment location. Based upon districts omitted, 50% of primary schools, 42% of all schools and 33% of direct learning beneficiaries are not represented in the evaluation sample. This is particularly concerning with the OOS sample as the baseline provides evidence of the variability in this population by district and school level context, thus the evaluation may not adequately represent the scope and effect of CBE in particular should enrolment patterns validate the findings of high variability by site. Collection of data in additional locations at midline and endline would require additional funding. By GEC design, the same sample points from IGATE were not revisited during IGATE-T assessments. However, with the exception of girls in grades 3 and 4, the rest of the IGATE-T evaluation points came from the same sampled cohort as in IGATE. Because both are robust samples, sampling theory allows us to make assumptions about population status and population change, even if the same girls were not revisited. Making use of additional data from routine monitoring and enrolment registers could be an option to address and where resources permit, also having additional sample points can be considered.
There may be less room for improvement along certain dimensions than there was ahead of the IGATE intervention. The initial IGATE intervention had many of the same objectives as IGATE-T. The more successful the implementation of IGATE, the less room there will be for additional gains to be made by IGATE-T. If	The project may improve its chances of achieving new improvements in outcomes by focusing resources on locations that did not receive the full IGATE intervention, or that show signs that they still have potential for significant improvement. Additionally, the IGATE-T project may expect to make the most gains from new, complementary intervention components that were not already part of IGATE. CBE is a good example of this in locations where demand for the program is high enough. We	This is likely the case in measures associated with access/transition – where IGATE was more successful in retention, particularly within upper grades of primary school. Learning outcome findings demonstrate substantial room for improvement. The project is considering a school typology to target variable strategies in terms of intensity and type of support. Because the vision of GEC-T is to continue working with the impact population targeted during the first phase of GEC so understand what affects transition as the girls age, this is not viewed as an unexpected evaluation feedback. New or expanded interventions such as whole school development, CBE, and implementing community-

this is the case, much of IGATE-T's benefit may be through the maintenance of the gains from IGATE. However, empirical methodology is intended to identify improvements in outcomes that were yet to be realized by baseline. .	discuss additional opportunities below	based leadership clubs were introduced in IGATE-T intending to address gaps that were identified in IGATE phase 1. These interventions have the potential to increase learning gains for the IGATE-T target groups. Gains regarding learning outcomes and other project indicators should take into account and reference inputs during the IGATE period.

Does the external evaluator's conclusion of the approach to gender correspond to the projects' gender ambitions and objectives?

The baseline considered YLI scores, gathered some quantitative information around household chores, and identified qualitative findings that suggest girls face more challenges completing primary school and transitioning to secondary school than boys due to safety concerns, family expectations, menstrual hygiene management, and early pregnancy or marriage. These give us a sense of the status on gender and correspond to the project's gender objectives through improving girls' sense of agency, improving life skills, and addressing traditional gender norms through community engagement. However, more information can be gained with qualitative evidence through project monitoring. The IGATE M&E team can complement the quantitative and initial qualitative information on gender gathered at the baseline by tracking (qualitatively) trends on gender.

What changes to the logframe will be proposed to DFID and the Fund Manager?

The management response should outline any changes that the project is proposing to do following any emergent findings from the baseline evaluation. This exercise is not limited to outcomes and intermediate outcomes but extends also to outputs (following completion of Annex 3 on the output indicators).

Logframe changes are listed below (substitutions)

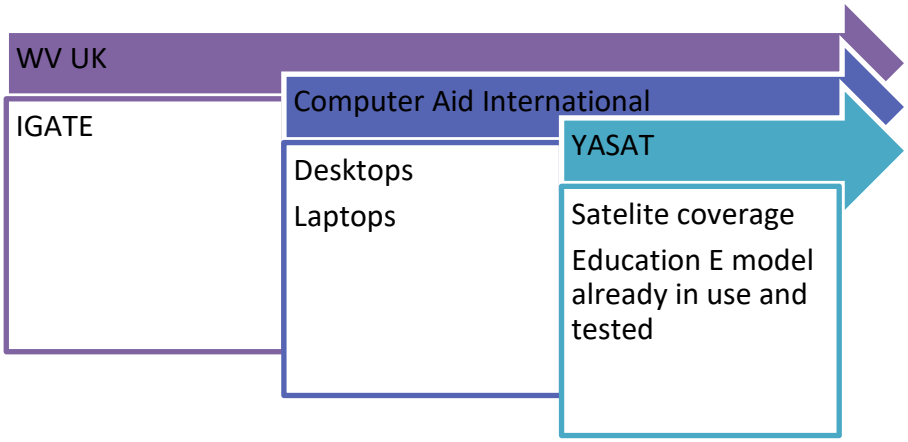
Outputs:
1. Targets realigned to final schools and TPD roll out schedule as follows:
1.1 Target -1330 (5*266) Primary teachers+266 primary school heads + 156 (3*52) Secondary Teachers+ 52 secondary school heads
1.2 Target - 160head teachers by 2019; 210head teachers by 2021
1.3 Target - 20% by 2019; 60% by 2021

2.	**CBE targets adjusted to reality of OOS variability in context. Adjustments also to the nature of the CBE content (blended content vs. linear modules including distinct financial literacy module.**
2.1	Maximum target of 2000 girls in 131 CBE sites. Boys, older girls will be counted in addition to the 2000 girls target.
2.2	% of adolescent girls enrolled and regularly attend CBE sessions (75% of sessions offered).
4	Correction – 4.4 substitute child protection committee with Girls Education Champion Network.

Outcomes:

Sustainability – Add MoPSE adopting WSD concepts and utilising resources on teacher professional development in system level changes.

Related to ToC - under **attitudes and perceptions** – consider expectations of school leaders, teachers and parents (possibly learners too) of learner performance. Seems low pass rates and high proportions of 'struggling learners' have been normalized and the result is teacher, head and parent attitudes that reflect lower expectations of learners (and learners of themselves over time). Changing the situation will require an attitude change that expects high learning outcomes of all learners. Parents/communities do indicate disappointment with trends in pass rates etc but seem defeated in their belief that the situation can be changed. This may be a uniquely Zimbabwean consideration in the GEC where academic trends (especially, socio-economic/rural/urban equity) are backwards. Consider adding a qualitative indicator on learning outcome expectations of learners of school heads, teachers and parents.

Options for enhancing (and accelerating) Learning Outcomes? – The IGATE T project is exploring options of integrating technology to accelerate learning outcomes. Opportunities do exist especially with the teacher training component as well as adopting real-time monitoring systems. Preliminary discussions with potential partners have started around using proven low-cost and logistically-light approaches to enhance the existing IGATE models.

WV UK, YASAF and Computer Aid International possible partnership