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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Midline Evaluation of the GEC-T Excelling Against the Odds Project,

implemented in Ethiopia by CHADET in partnership with ChildHope UK

April 2020

by Tariq Omarshah (lead), Andres Navarrete Berges, Shiran Anthony de Silva, James Gathogo and Dr. Marieke van Egmond from One South, LLC

Contents

This report was produced for the United Kingdom's Department for International Development (DFID) and summarizes the results of the Midline Evaluation of the Excelling Against the Odds Project implemented by CHADET and ChildHope in Ethiopia through funding from the Girls' Education Challenge Transition window (GEC-T).

This evaluation was carried out by Tariq Omarshah (lead) and Andrés Navarrete-Berges on behalf of One South, LLC, the project's External Evaluator. Data collection in-country was coordinated by Health Poverty Action's regional office.

Midline data collection took place in November and December of 2019. The baseline evaluation, which was conducted by another consultancy firm, took place in October-December, 2018.

The evaluation was facilitated by Angela Keenan and Iain Disley from ChildHope, UK as well as Wossen Argaw, Chala Legesse, and Kinfe Diriba from CHADET, Ethiopia.

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List of Acronyms

CBO	Community Based Organization	MEL	Monitoring, Evaluation and Learning
CHADET	Organization for Child Development and Transformation	NGO	Non-Governmental Organization
DFID	UK Department for International Development	OOS	Out-of-school
CP	Child Protection	OS	One South
CSO	Civil Society Organization	RAM	Review and Adaptation Meetings
EE	External Evaluator	SC	Significant Change (Story)
ESC	Evaluation Steering Committee	SD	Standard Deviation
F	Female	SDG	Sustainable Development Goals
GBV	Gender-Based Violence	UNESCO	United Nations Educational, Scientific and Cultural Organization
M	Male		

Acknowledgements

There are several stakeholders which need to be thanked for their role facilitating the Midline. Their support has ensured that the evaluation was conducted to a high standard of quality and with close fidelity to research design.

Principally, we would like to thank all girls, parents, teachers, Woreda officials, and other stakeholders who participated in the research. Participants were often not provided with incentives to participate but still committed significant periods of time to support the study, with the understanding that it would contribute to improved educational quality in the region and in Ethiopia more generally. Each of the 1,498 girls, parents and caregivers participating in the study spent around two hours completing relevant assessments.

Data collection activities in-country were coordinated by James Gathogo from Health Poverty Action and Girum Ketema. James and Girum ensured targets were met and enumerators were provided with all administrative and logistical support necessary to achieve the study's core objectives. This research could not have taken place without their drive and continued commitment to the quality of the process.

The Midline Study relied on the support of a team of over 50 enumerators across the two regions of Amhara and Oromia, including the zones of South Wollo (Amhara), South Gondar (Amhara) and Arsi (Oromia). Enumerators had to closely follow field protocols, tool administration guidance, and quality control processes to sample girls and their families in remote settings.

This required an immense effort, involving contacting school stakeholders in advance and coordinating data collection activities at schools and at households, all while ensuring the study could track the same participants that were sampled at Baseline, and that daily targets could be met. The full package of assessments took around 3 hours to administer for each case, including learning assessments, and the survey administered to girls and their head of household and caregiver.

Each zone had a qualitative research team, comprising a Qualitative Research Assistant (QRA) and one or two transcribers. QRAs in consultation with Zonal coordinators and project staff, recruited for all qualitative sessions, arranged venues, facilitated the sessions, and completed daily debriefing forms.

All audio sessions were transcribed by the transcription team, with the aim of completing the transcriptions during data collection, so the national coordination team could feedback to QRAs on progress, identify areas where the research had reached data saturation, and adapt tools accordingly. This effort

required the continued commitment and drive of the QRAs and transcribers who we would also like to offer our thanks to.

The enumerator and qualitative researcher team in each zone were supported by a Zonal Coordinator who they reported to on a daily basis, and who conducted one-on-one quality assurance visits with each enumerator. The three zonal co-ordinators often worked after hours to ensure they could report back to the national coordination team on sampling, the progress against set targets, and changing conditions in the field which included unexpected school closures due to political tension and harvest collection due to unforeseen adverse weather conditions requiring children to participate in harvesting activities, We would therefore like to extend our thanks to the three Zonal Coordinators: Girma Fentie (South Wollo), Yohannes Kebede (South Gondar), and Mohammed Abdo (Arsi).

At the national and zonal level, the study relied strongly on the efforts of the local CHADET headquarters, offices and field staff. Field staff were incredibly helpful in supporting enumerators and QRAs to access sample sites and to regularly problem solve on-going challenges with data collection. At the headquarter zonal level we would like to acknowledge the guidance and input from Wossen Argaw (CHADET Deputy Director), Kinfe Dirba (GEC Project Manager) and Chala Legesse, (GEC Monitoring & Evaluation Co-ordinator). We would also like to acknowledge the significant support from the South Gondar team - Adebabay Fenta (Project Co-ordinator), Adem Desalegn (Deputy Project Co-ordinator), Worku Kindie (Knowledge Management Officer); the South Wollo team - Abraham Abebe (Project Co-ordinator) and Jemila Mengesha (Knowledge Management Officer), and the Arsi team - Fufa Beha (Project Co-ordinator) and Naol Tune (Knowledge Management Officer).

The Midline Study was also strengthened by the continual support, and feedback provided by the ChildHope and CHADET teams. At ChildHope this included critical support and feedback provided by: ChildHope, UK staff: Angela Keenan (Monitoring & Evaluation Advisor), Iain Disley (GEC – Partnerships and Programmes Manager), Colin Haikin (Education Partnerships Advisor), and Jill Healey (Executive Director).

Finally, we would like to thank the wider One South[1] team who contributed to this study with various inputs, including support with tool design, support with data entry management, and support with qualitative reporting. Team members involved in these processes included Eva Bolza-Schuenemann, Tony de Silva, and Paul Rohde.

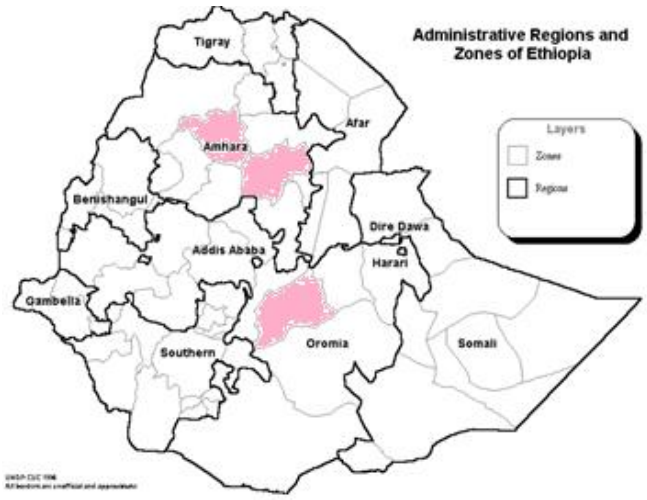
[1] One South, LLC: http://www.one-south.org

1. Executive Summary

1.1.1 Project Overview & Purpose of Midline Evaluation

Through funding from DFID's Girls Education Challenge Transitions (GEC-T), the Excelling Against the Odds project is implemented by CHADET in partnership with ChildHope UK in two zones of Amhara (South Wollo and South Gonder) and one zone of Oromia (Arsi).

Figure 1. Project Target Areas (Administrative Zones of UNDP 1998[2])



The project supports 16,481 marginalized girls to learn in school and successfully transition within school, to vocational training or to employment.

The project is being implemented from April 2017 - March 2021 and was preceded by a first phase, funded through the Girls Education Challenge Step Change Window, from 2013-2017. The second phase of the project supports the same cohort of marginalized girls as they enter adolescence, secondary school, vocational training, and the work force.

The Girls' Education Challenge (GEC) was launched by the UK in 2012 as a 12-year commitment to reach the most marginalized girls in the world. It is the largest global fund dedicated to girls' education[3].

The purpose of the Midline Study is to evaluate the impact, relevance, effectiveness, and sustainability of the project. The evaluation is designed to measure the project's impact on learning and transition through a quasi-experimental difference-in-difference design, where a cohort of girls in treatment and control are

[2] Reproduced and modified based on UN Emergencies Unit For Ethiopia in 2002 based on UNDP data from 1998: http://www.africa.upenn.edu/eue_web/eue_mnu.htm
[3] DFID Girl's Education Challenge: https://girlseducationchallenge.org/#/

tracked between evaluation periods. To support the project to deliver differentiated treatment to the most marginalized sub-groups of girls, specific barriers and characteristics that result in educational marginalization have been identified and are discussed throughout the report.

Data collection for the Baseline took place in October-December,2018. Data collection for the Midline took place in November and December of 2019, prior to the outbreak of the COVID-19 pandemic.

1.1.2 What impact did the project have on the learning and transition of marginalized girls?

The project had a statistically significant impact on numeracy outcomes between Baseline and Midline, based on the cross-sectional difference-in-difference model. The project therefore successfully delivered improvements to girls' numeracy over and above improvements experienced by girls in the control group[4]. Girls in the treatment group on average improved their numeracy by 12.5% more than girls in the control group.

Girls in the treatment group outperformed girls in the control group in all grades with regards to meeting expected numeracy curriculum competencies, further evidencing the contribution of the project to numeracy outcomes.

However, only a minority of girls' meet curriculum expectations in numeracy in all grade levels, suggesting that the numeracy curriculum does not meet girls at their current level and that teachers struggle to deliver to the curriculum in the way it was designed.

Girls who were in grade 8 at Baseline, experienced the greatest average improvement in numeracy outcomes between Baseline and Midline, suggesting these girls benefited most from project activities between periods.

As these girls have since transitioned to secondary school, this indicates that the project was particularly able to support girls' numeracy improvements despite a confluence of changes taking place, including the advent of adolescence and having new teachers and peers.

Due to the absence of literacy data from Baseline, it is not possible to conclusively evaluate the project's impact on either English literacy or local language literacy[5]. However, some evidence at Midline suggests the project has influenced literacy improvements between periods.

Logistic regressions using evaluation status to predict oral reading fluency levels find that treatment is a statistically significant predictor of higher levels of both

[4] Numeracy was measured through the single subtask that overlapped between periods the Advanced written problems subtask

[5] Local language literacy refers to either Amharic or Afaan Oromo depending on the region as the project targets different regions with different majority languages

English oral reading fluency and local language oral reading fluency. In qualitative sessions girls also report that homework tutorials have enabled them to improve their literacy through re-teaching of core concepts and access to additional reading materials.

At Endline, the study will assess the extent to which the project has had an impact on literacy improvements, but findings from Midline suggest that it may have already influenced these outcomes.

In terms of transitions, there were no significant differences between treatment and control schools in transition rates, although this is likely the result of the way the sample was taken due to data limitations inherited from Baseline, particularly the inability to track participants (See Limitations).

1.1.3 What works to facilitate the learning and transition of marginalized girls?

Several factors were found to support girls' learning in numeracy and English and local language literacy. These factors likely led to the project's impact in numeracy between Baseline and Midline.

Participating in Homework Tutorials leads to higher levels of English oral reading fluency, local language oral reading fluency, and numeracy at Midline according to linear models. Both teachers and girls report similar results of participation in homework clubs in qualitative sessions validating this finding. Homework Clubs provide an extended learning opportunity for marginalized girls and given that 81.4% of project beneficiaries are in Homework Clubs, this activity likely will continue to drive improvements and impact in learning between Midline and Endline.

Supporting girls to feel capable and comfortable participating in class is a statistically significant predictor of English oral reading fluency and numeracy at Midline. Several activities were found to promote girls' perceived capacity to participate in class including Girls' Clubs and Homework Tutorials. These findings suggest that through improving girls' ability to participate in class, these activities will drive improvements in learning and may have contributed to the project's impact on numeracy.

SRH activities that aim to reduce early pregnancies will prove to have a significant impact on the project. Likely, improving inclusive teaching practices will also ensure that more disabled children can successfully transition. Girls who have a power to make their own decisions are also likely to transition, suggesting that interventions that target improving the autonomy of girls in school and at home will be the most impactful. The project includes these such as those aiming to reduce chores at home, though autonomy skills may be incorporated more systematically in the life skills package offered.

Self-esteem at midline was a statistically significant predictor of numeracy, English oral reading fluency, English aggregate score, local language oral reading fluency, and local language aggregate score. This suggests that improvements in self-esteem will support improvements in learning.

Academic self-efficacy was a statistically significant predictor of English aggregate score, English oral reading fluency, local language oral reading fluency, and local language aggregate score at midline. Improvements in academic self-efficacy are likely to drive improvements in literacy learning based on these findings.

Several home environments factors around parental engagement were shown to support learning. Parental attitudes towards girls' education are a statistically significant predictor of local language oral reading fluency and local language aggregate score at Midline. When parents are supportive of girls' education, this leads to higher levels of local language literacy. Additionally, having an adult at home help a girl with homework is a statistically significant predictor of English aggregate score and numeracy at midline and having an adult at home to ask a child about what they do in school is a statistically significant predictor of local language aggregate score, and local language oral reading fluency. These findings suggest that parental attitudes and parental engagement supports girls to learn in school.

1.1.4 Was the project successfully designed and implemented?

To understand whether the project was successfully designed and implemented, we reviewed the extent to which the project delivered on its intermediate outcomes, and the extent to which project outputs designed to influence these outcomes played a role in these changes.

With regards to attendance, project girls started the GEC-T phase with high mean attendance levels, particularly when compared to girls in the control group. This meant that the project had little room to improve attendance between periods. Improvements in the control group therefore exceeded improvements experienced by the treatment group in average attendance.

Several project activities contributed to attendance improvements. Regression analyses determined that having attended a secondary school transition camp organized by the project supported girls to improve their attendance between Baseline and Midline. Qualitative evidence suggests that several project activities contributed to attendance improvements including the provision of school uniforms and supplies to girls and the provision of sanitary wear to support girls to attend school during menstruation.

Contrary to what would be expected, predictive models suggest that improvements in attendance levels do not directly influence local language literacy,

numeracy, or English literacy levels. The more a girl attends school between baseline and midline does not therefore necessarily lead to her learning more.

While this may speak to the existing teaching and learning environment, it could also be due to the fact that girls on average have relatively high levels of attendance and additional improvements in attendance do not lead to higher levels of learning because any additional attendance improvements would be marginal.

With regards to transitions, SRH interventions are well suited to the intended objectives given that girls who fall pregnant are likelier to fail at transitions.

With regards to teaching quality, a higher proportion of lessons in treatment schools demonstrated improved preparation, pedagogy, and assessment practices. This suggests the project has played a role in improving the quality of instruction in schools.

Interviews and discussions with teachers suggest these improvements were due to training provided by CHADET. Teachers outlined the benefits of learning new methodologies and report that these have enabled them to better support children in their lessons. However, teachers have also requested additional training on how to teach and accommodate for children with disabilities, an area that the project does intend to support.

With regards to life skills, girls in treatment schools have higher levels of academic self-efficacy and self-esteem than girls in control schools at statistically significant levels. This suggests that the project may have supported self-esteem and academic self-efficacy improvements between baseline and midline.

Analyses conducted at Midline indicate that several project activities are likely to have played a role in this. Homework clubs, where girls are supported to practice and improve their literacy and numeracy had a direct role in supporting improvements in self-esteem, according to predictive models. This suggests that homework tutorials provide a social context in which girls feel validated, supported, and empowered by their peers.

Participation in Girls' Clubs was a statistically significant predictor of academic self-efficacy at midline, indicating that Girls' Club's support girls to feel confident in their academic abilities. Qualitative evidence suggests this is because of the support network provided by the clubs.

2. Summary of Main Findings

2.1 Educational Marginalization

The project has started to play a role in reducing corporal punishment in schools, although evidence also suggests that this is still taking place.

The study found that 11.1% of girls in the control group and 9.6% of girls in the treatment group have been physically punished by their teacher in the last week. In addition, 25.8% of girls in the control group and 20.3% of girls in the treatment group have witnessed their teacher administer corporal punishment on another student in recent weeks.

Project staff suggest that corporal punishment is a national issue in Ethiopia and plan to continue to address this through future activities. The project team also suggested that these teachers may not be teachers who have been trained by the project, despite being in schools where the project works.

Although the proportion of girls is who have witnessed corporal punishment recently is high for both evaluation groups, there is a statistically significant association between witnessing corporal punishment recently and being a member of the control group, according to Chi-square tests.

This means that girls in control schools are more likely to witness corporal punishment than in treatment schools, signalling that the project has played a role in supporting teachers to implement different strategies to discipline students.

Economic hardship is a barrier to girls' education and intersects with the presence of several other vulnerabilities.

26.8% of households in the control group and treatment group live below the national poverty line of $1.50 per day. 31.4% of households in the control group and 31.5% of households in the treatment group live below the international poverty line of $1.90 per day.

According to Chi-square tests for association, girls who live in households that are likely to face extreme economic hardship are more likely, at statistically significant levels, to have parents who punish them physically at home, to report that there are not enough seats for all students, to not know a method of contraception, to have teachers who are often absent at school, and to report that

they cannot decide whether to stay in school but have to accepted what is decided by others.

Similarly, girls living in a household where the head of household is unemployed are more likely at statistically significant levels to travel over an hour to get to school, to not feel safe at school, to not feel safe traveling to school, to have witnessed physical punishment administered by a teacher in the last week, to be punished physically by their parent/caregiver at home, to currently be bullied, to have been bullied, to not have enough seats at school, to report not being able to move around school easily, to not use drinking facilities, toilets, or play areas at school, to find it hard to access sanitary pads, to have no one to ask questions to about sexual and reproductive health, to believe teachers treat boys and girls differently, to have a high chore burden, to report that chores makes it difficult to do school work and to report that they do not get support from their family to stay in and do well in school.

Qualitative evidence and interviews with project staff support these finding and further emphasize the role that poverty plays in preventing girls from having a stimulating and safe home learning environment and to learning in school. Girls from more economically vulnerable families are also likely to be pressured into working for cash or kind to support the household's livelihood.

Girls who spend an hour traveling to school are almost three times as likely to not feel safe doing so. This validates the project's activities promoting safety on the way to and from school.

Chi-square testing finds a statistically significant association between spending over an hour traveling to school and not feeling safe on the way to school. Girls who spend more time getting to school are more likely not to feel safe traveling to school, at statistically significant levels ($p<0.05$).

In the treatment group, while 7.5% of girls on the whole do not feel safe traveling to school, 20.0% of girls who spend an hour or more traveling to school do not feel safe traveling to school.

According to qualitative evidence, this may be because girls who live further away from school are more at risk of being harassed as the journey to or from school is longer and, due to the distance, may sometimes take place in the early hours of the morning or into the evening.

The project has been addressing safety on the way to and from school by establishing a buddy system where girls are encouraged to walk to school in pairs or groups. These finding suggest this activity is well targeted to support girls to access school and feel safe on their journey.

2.2 Learning Outcomes

Due to challenges with baseline data collected by the previous external evaluator[6], it was not possible to assess project impact on literacy between baseline and midline. Additionally, it was not possible to track the same cohort of participants between periods and match their learning data to their names and unique IDs. This means that project impact at Midline was only assessed for numeracy and relied on a cross-sectional approach.

The project had a statistically significant impact on numeracy outcomes between baseline and midline, according to the cross-sectional difference-in-difference model.

Numeracy at both periods was measured through the advanced written problems subtask[7]. The interaction variable (time x treatment) was a statistically significant predictor of numeracy levels ($p<0.05$; Beta=12.481; R2=0.323). the model was able to explain 32.3% of variance in the data. On average girls who were in the treatment group at midline scored 12.48% higher than girls in the control group at Midline and girls in the control group at baseline.

The greatest improvement in numeracy was exhibited by girls who were in Grade 8 at Baseline.

While both girls in grade 8 in the treatment and control groups improved their average numeracy levels, girls in grade 8 in the treatment group improved their average numeracy levels by 17.2% more than improvements experienced by girls in the control group.

Across grade levels, a higher proportion of girls in the treatment group meet expected curriculum competencies in numeracy than in the control group, supporting evidence that the project had an impact on numeracy outcomes between baseline and midline.

However, despite these achievements the majority of girls in treatment schools in Grade 6-10 do not meet expected curriculum competencies for numeracy. This suggests that the curriculum is too demanding based on girls' existing numeracy levels and that teachers face difficulties in delivering the numeracy curriculum across these grades.

All girls sat a literacy assessment in English. Literacy was also assessed in both Afaan Oromo or Amharic, depending on the project zone . In 1994, the language of instruction in Ethiopian schools switched from a mixture of Amharic and

[6] Refer to section 2.4 (Limitations) for additional details on challenges faced by the previous external evaluator at Baseline; Section 4.1 provides additional details on how impact was assessed in numeracy between periods

[7] Although additional tasks were administered, due to challenges with baseline learning data this was the only viable means to assess numeracy changes between periods; Refer to sections 2.4 and 4.1 for additional details

English to Amharic in Amhara, and Afaan Oromo in Oromia at lower grades, and English at higher grades. In Amhara, the LOI switches to English in grade 7, where is in Oromia, girls switch to English in Grade 9. At the university levels, the LOI is English.

A logistic regression finds that treatment is a statistically significant predictor of a girls' proficiency level in local language oral reading fluency.

This suggests that the project supports girls to improve their oral reading fluency and may have had an impact on local language literacy. However, due to the absence of literacy data from baseline, a conclusive determination on whether the project had an impact on local language learning cannot be made.

Almost all girls are proficient and established local language readers in both the treatment and control groups.

Significant literature supports the effectiveness and relevance of teaching mother language literacy in the primary years. The fact that girls are immersed in either Afaan Oromo or Amharic and that this is the language of instruction in primary schools may help explain these achievements. Moreover, these levels of proficiency in reading likely support girls to access the wider curriculum in primary schools, as the language of instruction in primary grade levels is either Amharic or Afaan Oromo, depending on the zone. Although a high proportion of girls are established and proficient readers in local language, they may not be able to understand all of what they read.

44.5% of girls in Grade 7 and 48.3% of girls in Grade 8 did not meet the expected curriculum competency for basic reading comprehension. This indicates that these girls need additional support learning to decode meaning from written texts they read aloud.

A logistic regression finds that treatment is a statistically significant predictor of a girls' proficiency level in English oral reading fluency.

This suggests that the project supports girls to improve their oral reading fluency and may have had an impact on English literacy levels. However, due to the absence of literacy data from baseline a conclusive determination on whether the project had an impact on English literacy learning cannot be made.

17.3% of girls in the control group and 13.4% in the treatment group are non-readers in English literacy, reading at a fluency rate of 0 to 5 words per minute. A chi-square test finds that being a non-reader is associated at statistically significant levels with being in the control group ($p<0.05$).

Across all subtasks girls in the treatment group perform better in English language literacy than in the control group.

This suggests that treatment schools and project activities have played a role in supporting girls' English literacy acquisition.

A minority of girls are established or proficient learners in basic reading comprehension: 21.0% of girls in the control group and 37.9% of girls in the treatment group.

These results suggest that, as many girls struggle with decoding meaning from written texts in their mother language, they are more likely to struggle to do so in a second language. This is widely validated in the literature where children with decoding challenges in their main language struggle to decode in their second language.

Collectively, a review of performance against expected curriculum competencies highlights that, albeit it a national issue, teachers and schools need additional support to deliver the English language literacy curriculum to girls,

With the exception of oral reading fluency levels for girls in grade 7, a minority of girls meet expected curriculum competencies in all grades.

Through predictive linear modelling, the study identified several barriers to girls' learning:

- Being married or cohabiting with a man as if married is a statistically significant predictor of and contributes to reduced outcomes in local language oral reading fluency, local language aggregate score, English oral reading fluency, and English literacy aggregate score. Being married or cohabiting with a man as if married according to linear modelling predicts that girls will score 35.8 words per minute less in local language oral reading fluency, 21.46% less in local language aggregate score, 37.61 words per minute less in English oral reading fluency, and 25.61% less in English aggregate score.

- Girls who have given birth have lower mean English literacy aggregate score, English oral reading fluency, local language literacy aggregate score and local language oral reading fluency than girls who have not given birth. These differences are at statistically significant levels.

- Living in a household where the head of household has no formal education is a statistically significant predictor of and contributes to lower local language oral reading fluency, local language aggregate score, English literacy aggregate score, and English oral reading fluency.

- Living in a household which faces extreme economic hardship is a statistically significant predictor of and contributes to lower local language literacy, and local language aggregate score ($p<0.05$).

- Having a mobility disability is a statistically significant predictor of and contributes to lower local language aggregate score and local language oral reading fluency. Predictive, unmoderated predictive modelling suggests that experiencing this type of disability contributes to girls scoring

29.9% lower on local language literacy aggregate score and 39.9 words per minute less on local language oral reading fluency.

- Having been physically punished by your teacher is a statistically significant predictor of and contributes to a girl scoring 12.94 words per minute less per minute in local language oral reading fluency, according to a linear regression model ($p<0.05$). This finding highlights the negative effect corporal punishment has on learning. Similarly, a linear regression finds that having your parent use physical punishment on you similarly contributes to girls scoring 7.26 words per minute less in English oral reading fluency.

- Finding it hard to access sanitary wear is a statistically significant predictor of and contributes to lower local language literacy aggregate scores and English literacy aggregate scores. This may be because girls who have difficulty accessing menstrual wear would struggle to attend and learn in school during menstruation. Similarly, not having access to someone to ask SRH questions predicts reduced local language literacy scores according to linear modelling.

  Teacher absenteeism is a statistically significant predictor of and contributes to lower local language literacy aggregate score, English literacy aggregate score, and local language oral reading fluency according to linear regression models. Specifically, having a teacher often absent predicts that girls will score 4.97% less on English aggregate literacy, 6.17% less in local language literacy score, and 9.76 words per minute less in local language oral reading fluency. The project should consider what steps it can take to reduce teacher absenteeism to ensure this does not hamper project impact on learning between periods.

- Both qualitative and quantitative evidence suggests that reading and math anxiety are significant barriers to girls learning. Girls in qualitative session report that they are nervous reading aloud and doing math problems in front of others and this makes them anxious. Quantitative measures of both reading and math anxiety were found to negatively affect literacy and numeracy and result in reduced outcomes, although these relationships are likely mutually reinforcing. Experiencing math and reading anxiety is associated at statistically significant levels with being in the treatment group, suggesting the projects need to target these specific skills more directly through activities to bolster girls' learning.

2.3 Transition Outcomes

This outcome also explores how successful are girls across different transition pathways, what they aspire to do, and how this is mediated by individual and social factors such as the family, the community, and the school.

Given that data for transitions was taken from schools, it was necessary to triangulate it with national Ethiopian education outcomes obtained from secondary data analysis. These were the results of such analysis:

- In Ethiopia, the net enrolment rate (NER) in primary school have increased for girls and boys over time and Ethiopia's latest adjusted net enrolment rate (NER) for primary school for 2015 (GC) was 81% of girls and 88% of boys[8]. This is the most up to date data publicly available.

- However, enrolment begins high in the early of primary school and drops towards the end. For 2015 (2009 EC), the net enrolment rate (NER) for Grades 1-4 was 107% for girls and 118% of boys[9,10]. In the upper primary school years (Grades 5-8), the NER drops to 59% for girls and 61% for boys from[11]. According to UNESCO, 53% of girls and 55% of boys completed primary school in 2015[12].

- In primary school, about 7% of boys and 6% of girls repeated the same grade level[13]. 13% of boys and 12% of girls are over-age students in primary school, which means that they are older than their classmates[14].

- This means that 11% of boys and 18% of girls were out-of-school in 2015. The latest drop-out rate for primary school recorded (Grades 1-8) was for the 2019/2017 academic year (2009 EC). The drop-out rate was 12% for girls and 8% for boys.

- In secondary school, a similar pattern emerges as the net enrolment rate for secondary school much lower. In 2015, it was 31% for boys and 30% for girls, suggesting that increasingly more children drop-out from school as secondary school progresses. Only 30% of boys and 29% of girls were able to complete secondary school in 2015.

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[8] UNESCO (2015) UNESCO Institute for Statistics: http://uis.unesco.org/en/country/et
[9] Federal Ministry of Education (2016) Education Statistics: Annual Abstract 2009 (2016/17). Available at: http://www.moe.gov.et/documents/20182/0/Statistics+2009+final+1/ca93f33d-0540-468e-9806-0e6032f8d848
[10] A NER exceeding 100% could be both due to recorded inconsistencies (such as girls enrolled vs. girls enrolled and attending for a certain period and thus considered as enrolled by schools) and by the fact that girls over-age may also enroll or re-enroll in primary school)
[11] Ibid.
[12] UNESCO (2015) UNESCO Institute for Statistics: http://uis.unesco.org/en/country/et
[13] Ibid.
[14] Ibid.

To measure whether girls could successfully transition, transition stages were recorded through the household survey and girls' survey by asking participants what they or their child were doing in 2017, 2018, and 2019, and then triangulating across multiple surveys to correct inconsistencies (stemming from participants' inability to recall specific information accurately). By asking each girl and household participating in the survey what they were doing the year before, and the one before that one, transition scores can be recreated. These findings indicate that:

Most girls from the sample were able to transition successfully between periods, in both treatment and control schools, though this is likely a result of the sampling method[15].

The overall transition rate for all girls the treatment group was 96% at both midline and baseline (with a positive difference of 0.4% between periods). For the control group, it was 95% at baseline and 97% at midline (with a positive difference of 1.2% between periods).

However, being in a treatment school does not alter the odds of being successful or not, neither in treatment nor in control schools.

While the control group seems to have progressed slightly more above treatment, these differences are not significant at statistical levels. Binary logistic regressions[16] found that the odds of being classified as a successful transition is the same for both treatment and control cases B= -0.135 (0.278), Wald = 0.235, C.I. (95) = (0.506, 1.508), p=0.628.

This overall rate is a much higher rate than the one reported at baseline for the benchmark group, which was set to be 66% for the treatment group.

This difference is likely the result of the sampling design (discussed above) and the fact that the measure of transitions might have been calculated in a different way.

Transition rates were generally high for girls in both primary and secondary school, though this is likely the result of the sampling design.

At baseline, 96% of girls in treatment schools transitioned onto the next stage, compared to 97% at midline. In control schools, 97% did so at baseline and 98%

[15] This refers to a sampling method that is school based, which means that girls who are in school already are likelier to have been selected to participate in this study. Therefore, an upward bias to transitions exists. This is discussed more closely in the chapter.

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

at midline. Girls from treatment primary schools improved by 1.3% between periods and control improved by 1.2%.

96% of girls in treatment schools were able to transition into secondary school at baseline and 97% of them did so at midline. In control schools, similar results were obtained, with 97% at baseline and 98% at midline.

No girls in the sample were found to be in TVET or Employment (paid or unpaid) at midline, in either control or treatment schools. This is expected, given that the sample was taken in schools, though we could learn if girls participating in the endline study will choose these pathways.

Girls in treatment and control schools are equally successful in transitioning across all types of transitions.

According to chi-square tests, there was no difference between treatment and control schools in the number of girls transitioning in any of the different pathways. This suggests that girls in treatment and control schools experience similar transitions.

Transition rates begin to drop as girls become older.

The figure below shows the transition rates of different age cohorts ranging from 10 to 20. From the figure, we can tell that transition rates drop slightly when girls become older, which suggests that girls in these age groups are likely to face a different set of barriers than those in primary school.

All girls who were out of school were either pregnant or nursing a child.

Only 0.5% of treatment girls and 0.6% of control girls were out-of-school at the time of the midline. There were 4 cases in each treatment and control (8 in total), all of whom were pregnant or nursing a child. While the prevalence is low, the fact that they all faced the same circumstance points at the merit of the intervention has contributed to strengthening the knowledge of sexual and reproductive health (SRH) and SRH rights in schools.

The drop-out rate decreased between periods, but the repetition rate increased.

The rate of drop-out decreased in both treatment and control schools. At midline, the rate of drop-out in treatment schools was of 0.5% and in control schools was 0.6%. The grade with the highest drop-out rate was Grade 10 in both treatment schools. The table below shows the drop-out rates by grade-level.

According to the project's internal data, drop-out rates increases overtime. By the end of Quarter 11*, the dropout rate was 7.68% and in Q12, it increased to 8.69%. In March 2018, the dropout rate was 6.24%".*

The fact that the project has different transition outcomes shows the limitations of the midline transitions measure, where the bias of taking a sample in schools

exists, At endline, we will be better able to compare aggregate rates, as the drop-out measure will be the same for both periods[17].

Repetitions increased, however, which shows that automatic progression, that is, learners being allowed to progress onto the next grade regardless of their performance, does not occur in Ethiopia. Rather, girls may repeat a grade level. Presently 3.6% of girls in treatment schools and 3.0% of girls in control schools, repeated a grade level. In treatment schools, the grade level with the highest repetition rate was Grade 5, followed by Grade 9, Grade 6, Grade 8, and Grade 7. In control schools, it was Grade 9, followed by Grade 6.

Girls who are pregnant are less likely to transition successfully.

Chi-square tests reveal that fewer girls who are currently pregnant are able to successfully transition in school, compared to those that are not ($p<.001$).. This confirms the assumption of the project to tackle early marriage and pregnancy through their interventions. All four girls found to be pregnant by the time of midline were unsuccessful at transitioning.

Girls with a disability are also less likely to transition successfully.

15% of girls with a functioning difficulty were unsuccessful at transitioning, compared to 4% of their non-disabled peers. These differences are significant according to chi-square tests ($p<.001$). Of the disability groups that were more unsuccessful at transitioning were those with a mobility impairment (33% were unsuccessful), a self-care impairment (29% were unsuccessful), or a communication impairment (33% were unsuccessful).

Girls who cannot choose whether to stay in school or not are less likely to transition in school.

Of the barriers that were shown to significantly affect transitions, only girls that cannot choose "whether to stay in school but has to accept what is decided for her" had a lower likelihood to be a successful transition over those that have more autonomy over their lives. This suggests that girls who feel like they have little control over their circumstances transition less successfully in school.

2.4 Sustainability Outcomes

The project had an overall score of 2.33, with changes generally becoming established in the school, community, and system levels. At the schools and communities, changes are becoming established with a score of 3. At the system-level, there are still changes that need to take place to ensure the sustainability of outcomes.

[17] Baseline rates could not be recreated in the absence of reliable baseline data

Two thirds of head teachers believe they have an operational abuse response system in place and one third believe they do not. 74% of head teachers in treatment schools and 65% of those in control schools believe their school has an operational response system in place. Although no cases of sexual abuse were reported, stakeholders in 16 out of 90 qualitative sessions mentioned the risk of sexual abuse for girls while they travel to and from school. This could be because the project has successfully raised awareness as to this barrier and so stakeholders are more aware it can happen, or that additional measures need to be put in place to support girls to travel to and from school safety and ensure the sustainability of attendance achievements. This is discussed in additional detail in the attendance chapter.

More than two thirds of girls report being supported by peers and family as they transition through education.

78% of girls in the treatment group and 75% of girls in the control group believe she gets the support they need from both family and friends. Many girls reported that this was because parents believed schooling would leave to greater life chances.

A significantly higher number of treatment schools have libraries compared to control schools and they are usually better stocked. Many books do not relate to what children learn in class,

94% of treatment teachers and 68% of control teachers reported their schools had a library. Of these teachers, 35% of those in control schools and 44% in treatment areas believed their libraries to be somewhat or very well stocked. However, many books do not seem to relate to what children learn in class. 44% control teachers and 55% of treatment teachers believe the textbooks available in the library relate to what girls and boys learn in class somewhat or very much.

87% of treatment schools have mechanisms in place for boys and girls to take books home.

When head teachers were asked if children can take books home, 87% mentioned they could, which is a significantly higher proportion than in control schools where 65% of them mentioned that children can take books home.

A higher proportion of lessons in treatment schools than in control schools demonstrate improvements in instructional practices across all domains.

At Midline, the study conducted 167 lesson observations to assess the extent to which teachers had adopted improved planning, pedagogy, and assessment practices. Each of these dimensions are discussed in greater detail in Section 5.2 (Intermediate Outcome: Teaching Quality). Findings indicate that at Midline, a higher proportion of lessons in treatment schools than in control schools demonstrate improvements in instructional practices across all domains.

Teachers and principals report they are supported by Education bureau experts but only to a limited extent.

In terms of support with improving pupils' attendance, 51% of teachers and 61% of head teachers agreed or strongly agreed with the statement that education bureaus' experts support them or have offered instruction on how to do so.

There is a lot of room for improvement in terms of supporting teachers to strengthen child safeguarding systems at their school with only 39% of them agreeing or strongly agreeing with the statement. Officials might just have more contact with head teachers, who 65% of them in treatment schools mentioned that they had good support in this regard.

As in the previous indicator, more headteachers than teachers mentioned that education bureau experts have supported to make pedagogic improvements. In treatment schools, 61% of head teachers and 52% of teachers agreed or strongly agreed with the statement, which is more than in control.

Similarly, Education Bureau Experts are yet to increase their support with abuse reporting. Presently, 48% of treatment head teachers and 35% of teachers agreed or strongly agreed with the statement.

In terms of teachers outcome reporting, head teachers have shown the highest agreement with the statement, possibly as it is their responsibility or mandate to make teacher reports. 70% of treatment head teachers received support from education bureau experts to report on teachers' outcomes (considerably more than in control).

In KIIs with head teachers and with CHADET staff, it was stated that many teachers and, head teachers to a lesser extent, have a sensitive relationship with education bureau experts influenced by low levels of trust. This, they cite, is because there is a differences in the selection process of teachers and officials into their roles where they feel education bureau experts do not have the correct qualifications and experience to make a valid assessments on teacher performance. The project has aimed to create common spaces to improve these relationships and have also relied on Communities of Practice for a more "collegiate" style of coaching and support for teachers. Overtime, the expectation is that these groups can work together in some way with education bureau experts to improve teaching practice.

2.5 Attendance

Average attendance levels in the treatment group at both Baseline and Midline are high, likely reflecting attendance improvements carried over from the first phase of the project.

21.8% of girls in the treatment group increased their attendance between baseline and midline. 22.4% of girls in the control group increased their attendance levels. Most girls in both evaluation groups maintained their attendance levels: 58.6% in the treatment group and 66% of girls in the control group. A large proportion of girls' whose attendance stayed the same between periods in both groups attended school 100% of the time at both periods.

Initial attendance levels for the treatment group at Baseline were higher than for the control group, likely signalling the role of the first phase of the project. This meant that girls on average in control schools had more room to improve between baseline and midline than girls in treatment schools.

Improvements in attendance in the control group between baseline and midline exceeded average improvements in the treatment group.

19.5% of girls in the treatment group decreased their average monthly attendance between periods, a much higher proportion than in the control group, where only 11% of girls decreased their attendance between periods.

However, aggregate attendance levels at both periods demonstrate that between baseline and midline, the project had far less room to improve attendance outcomes given the higher starting point in attendance at baseline compared to the control group.

For secondary girls, having attended secondary school summer transition camps was a statistically significant predictor of attendance improvements.

Attending the transition camp resulted in girls improving their attendance by 2.3% between evaluation periods. The model was able to explain 5.6% of variance in the data. This suggests that secondary school transition camps are a successful means to support attendance improvements between periods for secondary girls.

Qualitative evidence suggests that several other project activities may have also played a role in supporting girls to attend school.

Girls and parents report that improved access to sanitary wear has supported girls to attend school during menstruation. By midline only 9.7% of girls in the treatment group struggle to access sanitary wear compared to 22% in the control group. Girls report that prior to improvements in access they would not attend school when they were on their period.

Several stakeholders explained that the provision of school uniforms and supplies have supported girls to attend school. This supports the project's assumption that girls from households facing higher degrees of poverty and economic hardship face constraints preventing them from enrolling and attending school.

Qualitative evidence suggest that many girls fear sexual assault on the way to and from school and this can result in reduced attendance outcomes.

In numerous focus group discussions with girls and parents across regions, participants reported that the way to and from school is dangerous due to being sexually assaulted by men. Increased awareness of this barrier may be due to the sensitization activities conducted by the project. No specific cases of abuse were disclosed but findings suggest that girls are aware that this has happened in the past.

Given the extent to which it was mentioned in focus group discussions, the project should consider how it can better support safety to and from school, particularly for those who live further away. Quantitatively, the midline found that 7.5% of girls do not feel safe traveling to and from school. The project has instituted a buddy system, where girls are encouraged to travel to school in pairs or groups.

2.6 Teaching Quality

The project targets instructional improvements in three domains: preparation, pedagogy, and assessment. At Midline, the study conducted 167 lesson observations divided equally between treatment and control. The lesson observation tool was developed in collaboration with the project and educational specialists at ChildHope and CHADET.

At Midline, 46.8% of lessons in the treatment group demonstrated improved preparation, compared to 28.8% of lessons in the control group.

This suggests the project has played a role in improving the extent to which teachers have structured lessons around clear objectives, appropriately sequenced the learning, and planned the lesson in advance.

The largest difference between control and treatment was exhibited by the proportion of teachers who displayed lesson objectives at the start of the lesson.

While, 55.3% of teachers in the treatment group scored a '3' on this, only 41.1% of teachers in the control group did so.

For both groups, the lowest performing item was the teachers use of an appropriate and well written lesson plan.

Across items, the smallest proportion of teachers in both groups scored '3' on this: 17.8% of teachers in control schools and 28.7% in treatment schools. The rubric describes a '3' as follows: "A well-written lesson plan was available that included full details of the lesson aims and objectives, lesson timings, students' tasks and individual student targets. The lesson plan identified those students with a disability/learning difficulty and how to support them". Qualitative sessions with teachers suggest that they lack adequate time and materials to prepare lesson plans, although several report improvements in the last 12 months, since receiving training from the project.

At Midline, 16.0% of lessons in the treatment group demonstrated improved pedagogy, compared to 5.5% of lessons in the control group.

This suggests the project has made improvements between baseline and midline given the stark difference between treatment and control. However, given that a minority of lessons have adopted these practices there is still significant improvements that can be made in this area. In most areas of pedagogy assessed (10 of 13) the treatment group outperformed the control group, supporting evidence of the project's influence on improvements in pedagogy.

The weakest pedagogy area for the treatment group was the proportion of lessons where the teacher actively tried to involve students who were not participating. Only 14% of lessons scored in the highest category for this time. The project should consider how it can support teachers to better engage all students, including those who are not participating.

By Midline, 38.3% of lessons in the treatment group had adopted improved assessment practices compared to 34.2% of lessons in the control group.

A higher proportion of lessons in treatment schools have teachers who check that student learning has progressed since the last lesson and have teachers who assess students work and provide formative feedback. A higher proportion of lessons in control schools have teachers who give a summary at the end of the lesson and link to the next lesson.

In the treatment group the lowest performing area was the teacher giving a summary at the end of the lesson.

According to focus group discussions, teachers report assessing the level of their students frequently and many agreed that it was important to assess students, signalling the role the project has played in influencing changes in this domain.

The biggest constraint to assessment practices according to teachers was contact time with students. Lessons are between 45 and 60 minutes and they find it difficult to assess as many as 45 students within this short time period as well as deliver the content of the lesson.

Qualitative evidence suggests that teachers learned new methods and approaches to engaging and teaching children through the work with CHADET.

Several teachers mentioned the 3P approach (Present, Practice, Produce). While others spoke about learning the importance of supporting and engaging those who are do not participate in lessons through training provided by the project.

Discussions with teachers also highlighted that they believe their schools are ill equipped to support children with disabilities and that they need specialized

training on how to provide accommodations in the lesson for children with learning differences.

2.7 Life Skills

Girls in the treatment group have higher self-esteem than girls in the control group, suggesting the project may have played a role in supporting girls to improve their self-esteem[18].

In the treatment group 21.8% of girls have high self-esteem, 65.3% have average self-esteem, and 12.9% have low self-esteem. In the control group, 19.1% of girls have high self-esteem, 64.5% have average self-esteem and 16.3% have low self-esteem.

When a person's ideal self and actual experience are consistent or very similar, a state of congruence exists, which is an important basis for the development of self-esteem. The development of congruence is dependent on the positive regard that we receive from our social context[19].

Comparisons of means finds that there is a statistically significant difference in mean self-esteem between the treatment and control group. Girls in the treatment group have higher average self-esteem than girls in the control group at Midline.

Having attended homework tutorials was a statistically significant predictor of girls' self-esteem levels at Midline.

This suggests that attending homework tutorials helps strengthen girls' self-esteem. Given that most girls in the treatment group attend homework tutorials: 81.4% this activity is likely to support the project to deliver improvements in girls self-esteem by Endline.

From the theoretical basis for self-esteem, it is likely that HW tutorials provide a social context through which girls perceive the positive regard of their peers and the tutorial facilitator, have empowered social roles within the group, and are able to identify with other members of the tutorial in a positive way.

Several barriers were found to predict reduced self-esteem at statistically significant levels ($p<0.05$) based on linear modelling:

[18] However, self-esteem was not measured at baseline so additionality of the project cannot be determined.

[19] Self-esteem is determined by one's views of their ideal self, their of actual self, and the 'positive regard' received from social context. Positive regard is driven by (1) the ways in which others, particularly significant others react to us, (2) how we think we compare to others, (3) our social roles, (4) the extent to which we identify with other people.

- Being married or living with a man as if married
- Living in a household that is facing extreme hardship
- Traveling an hour to get to school
- Not feeling traveling to school
- Not feeling safe at school
- Being physically punished by the teacher in the past week
- Girl is currently bullied
- Girl is often lonely at school
- Having chores which girls' report make it hard to do schoolwork
- Not being able to choose whether to stay in school and having to accept what is decided for her

Girls in the treatment group have higher academic self-efficacy than girls in the control group, suggesting that the project may have played a role in supporting academic self-efficacy improvements[20].

90.2% of girls at Midline in the treatment group have high academic self-efficacy, 6.0% have average academic self-efficacy, and 3.8% have low academic self-efficacy.

In the control group, 81.9% have high academic self-efficacy, 10.5% have average academic self-efficacy, and 7.6% have low academic self-efficacy. Mean academic self-efficacy is different at statistically significant levels between the treatment and control groups with girls in the treatment group having higher mean scores at midline ($p<0.05$).

Being a member of a Girls Club is a statistically significant predictor of academic self-efficacy at statistically significant levels.

This suggests that Girls' Clubs support girls to have higher self-perceptions of their capabilities to learn and perform in school and this is likely to lead to self-esteem improvements between Midline and Endline.

Having received a school uniform from CHADET is a statistically significant predictor of academic self-efficacy at statistically significant levels.

This suggests that being given a school uniform supports girl to feel confident in their academic abilities.

[20] However, academic self-efficacy was not measured at baseline so additionality of the project cannot be determined.

With regards to key sub-groups. Living in a female headed household was a statistically significant predictor of academic self-efficacy ($p<0.05$).

This suggests that female-headed households may be better at supporting girls to feel capable in their academic abilities. This may be due to the fact that girls in female headed households have a female household head to look up to.

Several barriers were found to predict reduced levels of academic self-efficacy at statistically significant levels based on linear modelling ($p<0.05$):

- Not having a head of household who can speak the language of instruction
- Having a high chore burden
- Reporting that chores make it difficult to do schoolwork
- Girl reporting that she does not get enough support from her family to stay in and perform well in school
- Not using the toilet at school
- Girl reports not being able to choose whether to stay in school and having to accept what is decided for her

Chapter 2: Project Background

3. Project Background

3.1 Project Design, Targeting and Reach

The Exceling Against the Odds Project, is implemented in the zones of Amhara (South Gonder and South Wollo) covering 7 Woredas and 24 Kebeles, and Oromia (Arsi) covering 7 Woredas and 24 Kebeles and aims to address the marginalization that girls face when accessing education in target schools in these regions.

Figure 2. Administrative Woredas of Amhara Region (Approximate Borders UNDP 1998)[21]

Ethiopia is a country that is characterized by large rural areas, which makes access to education inequitable and contributes to a significant difference in enrolment and literacy rates between rural and urban areas. Girls are forced to endure further barriers to education owing to poverty, domestic work, early marriage, migration, and disability. To overcome these barriers to education, the project provides a package of school, community, and district level interventions.

[21] The project is running in the following Woredas of Amhara: (# on map) Reproduced from UN Emergencies Unit For Ethiopia in 2002 based on UNDP data from 1998: http://www.africa.upenn.edu/eue_web/eue_mnu.htm

Figure 3. Administrative Weredas of Northwest Oromia Region (Approximate Borders UNDP 1998)[22]

The project's target beneficiaries consists of 16,481 girls aged 7 to 18+ from Amhara & Oromia, and who attend school between Grades 1 and 12. Girls were specifically recruited if they were classified as marginalised by being grouped into one of the following identifiers: living in poverty, street children, early marriage, risk of migration, risk of work (domestic or other), or disability.

Table 1: Beneficiaries' grades and ages

Beneficiary grades & ages		
	Baseline	Midline
Grade	e.g. Grade 4	e.g. Grade 5
Age	e.g. 9-11	e.g. 10-12

The three final outcomes that the project hopes to achieve include having girls reach higher levels of achievement in numeracy and literacy (Learning), better transition of girls to higher grades, tertiary education and/or gainful employment (Transition), and increased assistance for girls' achievement from family, community and government (Sustainability).

According to the project's Theory of Change, four intermediate outcomes precede these final outcomes and are crucial milestones during the course of the project. These are improved school attendance rates, improved quality of

[22] The project is running in the following Woredas of Northwest Oromia: Reproduced from UN Emergencies Unit For Ethiopia in 2002 based on UNDP data from 1998: http://www.africa.upenn.edu/eue_web/eue_mnu.htm

teaching, increased self-esteem and empowerment of girls, and increased skills in entrepreneurship and employability.

To achieve these intermediate outcomes and final outcomes, the project first relies on a number of activities whose direct output progresses into the intermediate outcomes. These are listed below:

The project hopes to reduce the overall economic and psychological burdens of attending school by contributing towards the tuition fees and providing guidance on transitioning to higher grades for girls and their families. The project also aspires to make learning environments more stimulating through the establishment of reading corners. Additionally, sanitary corners and pads will be made available in schools so that menstruation would not be a hindrance to girls' attendance.

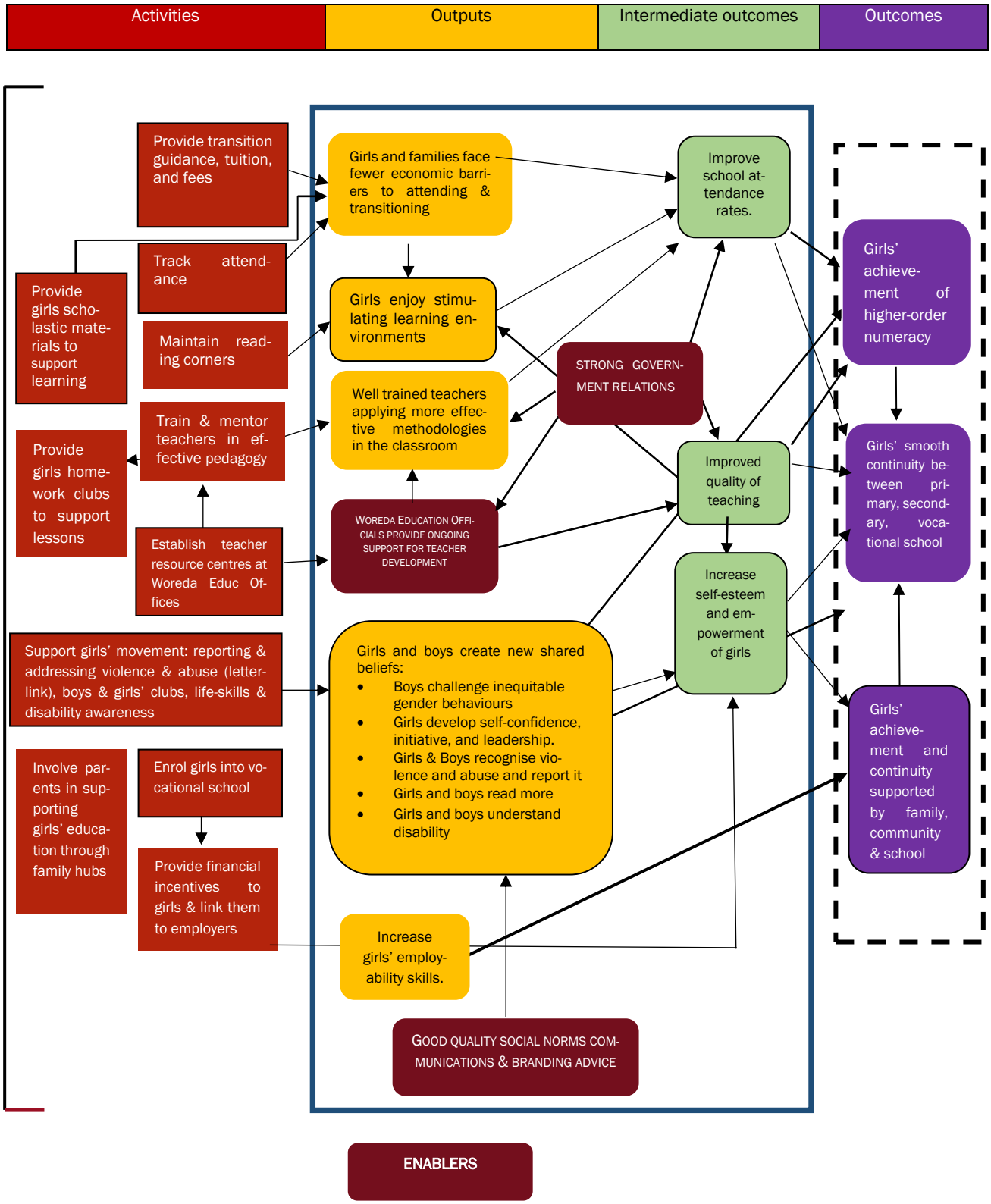
In order to improve the quality of teaching, an estimated 500-600 teachers will be provided training, mentoring, and coaching especially in subject-specific teaching for literacy and numeracy. Teacher resource centres at Amhara and Oromia Woreda educational offices are set up to offer mentoring to teachers and to aid them if offering bilingual pedagogy. The aim of this is to allow teachers to both develop and apply teaching methods more effectively.

To both increase the self-esteem and empowerment of girls, the project plans to challenge gender norms and help foster new shared beliefs between boys and girls through the girls and good brother clubs, letter link boxes and sanitary corners. The purpose of these spaces is to foster the appropriate developments that empower girls to recognize and report violence and abuse.

To develop and increase skills in entrepreneurship and employability, parents will be involved in supporting girls' education through family hubs, girls will be enrolled into vocational schools, and financial incentives will be given to girls, while referring them to employers. In addition to increasing employability skills, the aim is to also give them the required self-esteem and empowerment to continue with their education, while having the support of their family.

The project's Theory of Change is visually depicted on the following page.

Project's Theory of Change



Several adaptations were made to the project following on from Baseline. These included:

1. Taking the 22.61% baseline figure of girls who receive transition support costs into consideration, it was found that the sustainability of households able to pay the costs associated with schooling was weak. This percentage was to be reduced before midline in order to find a more realistic figure that increases sustainability of the project. A focus on sustaining livelihoods of families was deemed to be of importance in order to prevent a reduction in transition rates, although the project design and budget does not support livelihood interventions.
2. The Baseline highlighted that transition rates could reduce dramatically once the project is completed because families would not be able to afford costs associated with materials for schooling. A focus on sustaining livelihoods of families is once again important, with a reduction of the percentage of girls that receive scholastic materials from 68.27% to a number that is more reasonable.
3. In baseline, external barriers to learning were found to disrupt transition rates of girls, especially those who had to travel long distances to school. While the project already strives to address safety, a greater focus is to be put on areas of need and makes sure girls are travelling accompanied or in groups.
4. Teacher absenteeism was found to be an important barrier in the baseline report and was not originally factored into the Theory of Change. Further work is being done to capture teacher absenteeism through school leadership initiatives.
5. Even though results from baseline found that attitudes to girls' education is shifting positively, further work has been done on ascertaining areas where girls are still subject to high burden chores (26%).
6. For sustainability outcomes (Outcome 3), interventions that help support girls' families with the financial costs associated with schooling was considered due to families reporting at baseline that although having a changed mindset to support their daughter's education, they may not be able to financially afford to send their daughter to school.. Furthermore, the family hub intervention is to be reconsidered, the qualitative instrument used to measure stigma toward single and divorced women is to be revised for midline, and the indicator for teacher retention is to be amended.

3.2 Project Context

Ethiopia has an approximate population of over 95 million. The population is diverse, with more than 90 ethnic and linguistic groups. 80% of the population lives in the highland and 20% live in the lowland, which accounts for 60% of the country's area.

Ethiopia is one of the least urbanized countries in the world, with only 19% of the population living in urban areas. 44% of the population is aged between 0 - 14 years, and 53% of the population is between 15 and 65 years[23].

Since 1991, Ethiopia has held five elections and has transitioned from a centralised undemocratic state to a decentralised democratic state with a system of governance in place that devolves fiscal and decision-making powers to the regional level.

Ethiopia has nine national regional states which are Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations Nationalities and People Region (SNNPR), Gambella and Harari. Additionally, there are two administrative states, Addis Ababa City administration and Dire Dawa city council)[24].

Oromia spreads over the largest part of the country and consists of twelve administrative zones, with the capital city of the region being Addis Ababa. As of 2014, the population of the region was approximately 35 million[25]. Oromifa is the official language and constitutes 83.5% of the spoken language. Over 90% of the people in Oromia live in rural areas and agriculture has remained the source of livelihood for the majority of its inhabitants.[26] As of 2005, common indicators listing the standard of living for citizens of Oromia found that adult literacy for men is 61.5% and for women 29.5%[27].

Amhara consists of ten administrative zones, with Amharic as the working language of the state. As of 2014, the population of the region was approximately 20 million.[28] 85% of Amhara's citizens engage in agriculture.[29] As of 2005, common indicators listing the standard of living for citizens of Amhara found that adult literacy for men is 54% and for women 25.1%[30].

Since 1995, the national government has embarked on several economic developmental programs to aid in the reduction of poverty. These central objectives aim to address human development needs and make Ethiopia a middle-income country by 2025. The growth and shift of the economy into a more industry and service based one, has centred the focus on the need for high quality education, with efforts to improve the overall literacy and numeracy levels of the

[23] Education Sector Development Programme V (ESDP V), p. 11
[24] Ethiopian Government Portal: Regional States (http://www.ethiopia.gov.et/regional-states1)
[25] Federal Democratic Republic of Ethiopia Central Statistical Agency (http://www.csa.gov.et/ehioinfo-internal)
[26] Ethiopian Government Portal: Oromia Regional State (http://www.ethiopia.gov.et/oromia-regional-state)
[27] Ethiopia Atlas of Key Demographic and Health Indicators, 2005 (https://pdf.usaid.gov/pdf_docs/PNADM636.pdf).
[28] Federal Democratic Republic of Ethiopia Central Statistical Agency (http://www.csa.gov.et/ehioinfo-internal)
[29] Ethiopian Government Portal: Amhara Regional State (http://www.ethiopia.gov.et/amhara-regional-state)
[30] Ethiopia Atlas of Key Demographic and Health Indicators, 2005 (https://pdf.usaid.gov/pdf_docs/PNADM636.pdf)

population. An emphasis on the need for skilled labour has also pushed for the creation of Technical and Vocational Education and Training (TVET)[31].

In 1994, the language of instruction in Ethiopia shifted from a mixture of Amharic and English to one which incorporates the children's mother tongue at lower grades and English at upper grades. In Amhara, this switch from Amharic to English happens at Grade 7, while in Oromia, this switch to English from Oromo, happens at Grade 9[32].

Ethiopia previously had a 4+4+2+2 educational system with eight years of elementary school divided into two cycles of four years, and four years of secondary education that is divided into two cycles of two years[33]. However, since September 2019, this system was changed to a 6+2+4 system after an extensive consultative process involving the review of 35 proposals for changes and consultation meetings conducted to ensure the new system aligns with education sector priority areas.

According to the ESDP V, the goal for improving access and equality in general education states: "to provide all children with access to pre-primary education for school preparedness and access to nearby institutions in which they can complete the full eight years of primary and two years of general secondary education".[34] As a result of joint efforts, student enrolment to primary schools has risen 3 million to over 18 million. As of 2013/2014, the net intake ratio was 102% for girls and 109% for boys. Rates more than 100% were noted due to imprecise population figures and challenges in measurement of student age at the point of entry[35].

However, even with an achievement in access rates, many students leave the system early as reflected by a Grade 8 completion rate of 47%. When the second primary cycle is reached, the Gross Enrolment Rate (GER) stands at 64 % (63% for girls and 65% for boys), while the Net Enrolment Rate (NER) stands at 50% (50% for girls and 49% for boys), against targets of 100% and 80%, respectively.[36]

Some of the factors that seem to influence a demand for secondary education include poverty, lack of transport, the need to work (time and economic restrictions), early marriage (gender biases), lack of accommodation near schools (financial, cultural and social) and disability. The GER in Grades 9–10 has only seen a small change, beginning from 39.1% and reaching 39.3% against a

[31] Education Sector Development Programme V (ESDP V), p. 12, 13
[32] Education Sector Development Programme V (ESDP V), p. 17
[33] World Education News + Reviews (https://wenr.wes.org/2018/11/education-in-ethiopia)
[34] Education Sector Development Programme V (ESDP V), p. 35
[35] Education Sector Development Programme V (ESDP V), p. 15
[36] Ibid.

target of 62%. A high growth of enrolment from Grades 11 - 12 is seen mostly due to a demand from universities.[37]

Overall, the Gender Parity Index (GPI) dropped from 0.98 in 2009/10 to 0.95 in 2013/14 even if pre-primary enrolment has increased. Although the GPI in first cycle primary has fallen to 0.91 in 2013/14 from 0.93 in 2009/10, GPI in the second cycle of primary education had seen a national improvement to 0.97 from 0.94 across the same period. The GPI for the first cycle of secondary education (Grades 9–10) has seen an improvement from 0.80 in 2009/10 to 0.94 in 2013/14 and the GPI for the second cycle of secondary education (Grades 11–12) improved from 0.46 to 0.85 over the same period.[38]

According to a report by UNESCO, one of the main barriers that girls face in accessing education is poverty. However, other barriers include several socio-cultural factors such as social norms and traditional practices that girls in Ethiopia need to ascribe to, gender-based violence, early marriage, and teen pregnancy. Several school-related factors also inhibit girls from taking advantage of all educational opportunities available to them. These include a lack of gender-sensitive teachers, girl-friendly school environment, lack of targeted interventions to support girls, and long distances to school.[39]

In Ethiopia, it is estimated that there are 5 million children with special needs. However, in 2013/2014, only 77,850 children (42% girls and 58% boys) with identified special needs were recorded as enrolled in school between Grades 1 - 12. With regards to primary education, only 4% of the estimated children with special needs are thought to be enrolled. In the TVET sector, participation of students with special needs has risen from 398 in 2009/2010 to more than 1000 in sub-sector by the end of ESDP IV. Some of the reasons why children with special needs are not supported include a lack of awareness, lack of appropriate skills by teachers, poor school infrastructure and facilities/materials, and a lack of reliable data.[40]

Similarly, to previous sector plans, the ultimate goal of the ESDP V is to place education as a high priority in the overall development endeavour of the government. The ESDP V also involves a strong focus on a few important policy priorities such as improving teacher quality, developing core foundation skills, reducing high drop-out rates, and ensuring relevance of middle and higher level training, instead of trying to spread limited resources across too many priorities. A strong collaboration and communication across all educational levels and amongst ministries in multi-sectoral efforts, will be important in ensuring structural changes to the economy within the next five years. The endeavour will also

[37] Education Sector Development Programme V (ESDP V), p. 16
[38] Education Sector Development Programme V (ESDP V), p. 25
[39] UNESCO Global Partnership for Girls' and Women's Education - One Year On (http://www.unesco.org/eri/cp/factsheets_ed/ET_EDFactSheet.pdf).
[40] Education Sector Development Programme V (ESDP V), p. 26

be supported by the acceptance and establishment of an educational law during the period of the ESDP V.[41]

3.3 Evaluation Approach, Methodology & Sampling

The full methodology is presented in the evaluation inception brief, the project's Monitoring and Evaluation Framework (Annex 10), and in Annex 3 (Midline Evaluation Approach and Methodology).

The evaluation answers four central questions:

- What impact did the project have on the learning and transition of marginalized girls?
- What works to facilitate the learning and transition of marginalized girls?
- Was the project successfully designed and implemented?
- How sustainable are project results and activities?

In line with the evaluation design, the study sampled girls in treatment and control schools. The sample size per period are shown in the tables below.

Girls in the treatment group receive the project's intervention, while girls in control schools are sampled to establish a reliable counterfactual in line with the difference in difference impact methodology.

Table 2. Evaluation Sample per Period

Grade at Evaluation Period	Baseline (2017)		Midline (2019)	
	Control	Treatment	Control	Treatment
Grade 4	160	136	0	0
Grade 5	183	172	3	86
Grade 6	129	174	159	155
Grade 7	121	134	197	155
Grade 8	101	103	136	176
Grade 9	0	0	118	153
Grade 10	0	0	61	99
Total	694	719	674	824

Girls not matched at individual level due to limitations inherited from previous evaluator

Quantitative tools administered included the attendance tool, which collected historical attendance data for each girl in the control and treatment group, the Girls survey, the Household Survey with heads of households and caregivers, numeracy assessments (EGMA/SeGMA) and literacy assessments

[41] Education Sector Development Programme V (ESDP V), p. 33

(EGRA/SEGRA) in both English and Local language (Afaan Oromo or Amharic depending on the zone). All girls in both the treatment and control group completed the full package of quantitative assessments.

A principal survey was carried out at the school level as well as lesson observations and teacher surveys.

Qualitative sessions were conducted with stakeholders to unpack intervention assumptions, expand upon, complement, and contradict quantitative approaches. A full package of qualitative discussion guides is included in Annex 12 (Data Collection Tools used for Midline). All qualitative sessions were recorded, transcribed, and translated into English. Transcripts were coded to analyse findings thematically. Coding following a top-down descriptive coding scheme and a bottom up eclectic coding method by EE specialists in inclusion, gender, and education.

Enumerator and Qualitative Research Assistant training was conducted in each of the three ones by One South and Health Poverty Action with the support of ChildHope and CHADET staff.

Quantitative enumerators attended a 4-day training workshop which covered best practices in tool administration, probing techniques, disability research, research ethics and child protection, learning assessment administration, cohort tracking, replacement rules and daily and weekly reporting requirements. Enumerators were trained to closely adhere to quality assurance guidelines prepared by the evaluator. Sessions included a mix of taught lectures and dramatization exercises.

Several quality assurance processes were put in place during and after training. On the final day of training, enumerators visited a pilot school, where they administered the full package of assessments to two girls. Supervisors completed one on one observations with each enumerator, scored them, and provided individualized feedback. To ensure consistent administration throughout, trends were identified and discussed in a plenary session. During data collection, field supervisors were required to conduct 2 quality assurance visits with each enumerator following a similar approach. Quality assurance findings were grouped and shared in morning briefing sessions before the quantitative team visited sample sites.

Qualitative Research Assistants (QRAs) completed a 2-day training which included sessions on qualitative research in practice, probing techniques, note-taking, the main research questions, reporting requirements, disability research, session recruitment, sampling techniques, research ethics and child protection.

As well as recording all qualitative sessions, QRAs completed daily debriefing forms which were reviewed by the consultant team to provide on-going feedback and to inform adaptations made to sessions guides, based on domains where the study had reached data saturation. In debriefing forms, QRAs were

encouraged to reflect on their research and their role their role and position in line with a critical and reflexive research approach.

The evaluation closely followed ChildHope and CHADET's Child Safeguarding Policy and One South's Research Ethics Guidelines. If child protection violations were identified, enumerators reported these to both their field supervisor, and to CHADET.

3.4 Limitations

There are several limitations to this evaluation that are necessary to acknowledge at Midline. A few of these limitations are due to challenges with the quality of the data or data collection processes put in place by the previous evaluator at the project's baseline. The evaluation was originally intended to follow a cohort of girls in both a treatment and control group between periods.

One South was appointed as the external evaluator at Midline and has, where possible, attempted to put in place strategies to mitigate for these challenges and ensure the evaluation at Endline will be able to follow the original research design.

The following limitations are acknowledged:

1. The lack of unique IDs matched to a sufficient number of names and learning data at Baseline meant that learning data could not be matched at the individual level. Evidence suggests that at Baseline different groups of girls sat different types of assessments. Typically, all girls sampled would conduct all learning assessments, a child survey, and have their parents interviewed. This data would be merged to ensure that learning data findings could be linked to the Child Survey and Household Survey. However, while there was cross-over in some cases, this was not consistent. Names for girls were collected from the Girls' Survey and the Household Survey and therefore not all the names provided were linked to learning data from Baseline. The fact that learning data lacked unique IDs which were also matched to names, made it impossible to merge learning data at the individual level at Midline, as would be done in an individual-level difference-in-difference (DID) approach.

2. The lack of sufficient cohort tracking data at Midline made it difficult to track participants at Midline. At midline we relied on a list of names provided by the previous evaluator. This allowed us to attempt to preserve the composition of the cohort despite being unable to match the girls at the individual level at Midline for key outcomes. Additionally, the type of cohort tracking data was not sufficient to track the girls. While some GPS data was collected, in many cases this it was unreliable or was GPS data of where the data was entered, or of the school itself. At Midline

collected contact information was collected for parents or neighbours, direction to the girls' household, contact information of the girls' teacher, as well as the girls' school and grade. This will ensure that it is possible to track these girls at Endline.

3. An in-depth review of learning data at Baseline identified several inconsistencies which raised doubts as to the quality of the administration of these assessments, particularly for subtasks administered by enumerators. At Baseline both literacy and numeracy results suggested a counter-intuitive trend: namely that as grade level increased both numeracy and literacy levels decreased or did not change. In consultation with the Fund Manager we reviewed this data after the collection of Midline learning data to determine if the trend persisted, which would signal the findings were accurate. However, in both the treatment and control groups at Midline results indicated that as grade level increases so does literacy and numeracy levels, as intuitively expected. This raised questions as to the validity and reliability of the data collected at Baseline. The only task at baseline which exhibited expected results was the written task for numeracy that was self-administered by girls. The team decided this would be the only task used to understand baseline to midline changes in learning. Therefore, at Midline impact on numeracy is evaluated but not impact on literacy.

4. Sampling at schools causes an upward bias in transition data. Because sampling occurred at schools, the number of girls transitioning in employment or TVET will artificially be lower than expected. This is because, by sampling in schools, girls who are in school transition pathways have a higher chance of being selected than girls who are in other pathways. Household-level sampling would be need for more accurate transitions data.

5. Discrepancies between grades reported at Baseline and girls' actual grades suggest gaps exist in what has been reported in the project's baseline report. Using the list of girls sampled at Baseline, we checked the girls' grade at Baseline against the project's beneficiary dataset. In many cases the grade at Baseline did not match the grade reported in the project's dataset. These were not explained by the passage of time between periods as the gap was in many cases very different to what was expected. This raises questions as to the extent to which grade level reporting that took place within the project's baseline report is accurate. Due to the lack of sufficient information to match girls at the individual level at Baseline, it is not possible to go back and change the grades in the dataset as we cannot be certain if these girls are the same girls whose names were provided and cannot identify which girls these are in baseline learning outcome datasets.

6. The sample size of girls at Baseline was below the target sample size specified in the evaluation's research design, and therefore is

underpowered to draw generalizable conclusions from. This means that it is difficult to draw meaningful conclusions or generalizations from baseline data at baseline and also meant that although we had some names, the list of names was not sufficient to ensure a complete cohort of girls could be tracked, despite the inability to match these girls at the individual level.

7. The findings included in this report cannot be generalized to the wider Ethiopian context. The findings of this report can only be generalizable to the control and intervention school populations. The aim of this study was not to draw conclusions about the current context of schools or marginalized girls in the Ethiopian context but rather to inform this specific project's evaluation.

Chapter 3:

Educational Marginalization

4. Educational Marginalization

In line with Sustainable Development Goal (SDG) 4, the GEC-T project in Ethiopia works to *ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*[42].

SDG 4 places particular emphasis on identifying groups of children who are excluded by mainstream programming, in order to shape education policy and implementation and ensure quality and inclusive education can be delivered to those most marginalized.

In response to these needs, the GEC has developed an educational marginalization framework that supports projects to target and monitor sub-groups of children that have been identified as being educationally marginalized or who are at risk of marginalization in project contexts.

Educational marginalization refers to a "form of acute and persistent disadvantage rooted in underlying social inequalities"[43]. This report understands it as both an outcome and a process through which individuals and groups are excluded from educational opportunities that would allow them to achieve greater life chances and reduce, often entrenched, disparities. The GEC framework interprets educational marginalization through key characteristics and barriers that influence and intersect to produce unique forms of exclusion.

Characteristics are social identities such as geography, language, poverty, age, and disability. These are not universal[44] but rather socially constructed and changeable. Barriers are understood as conditions that reduce access to education or quality educational outcomes.

This chapter outlines the *specific* characteristics that the project uses to identify girls who are educationally marginalized or at risk of educational marginalization as well as the *specific* barriers that the project targets to support girls' education

[42] UN General Assembly Resolution 70/1, Transforming our world: the 2030 Agenda for Sustainable Development, A/70/L.1 (21 October 2015)

[44] GEC guidance defines characteristics as both universal and contextual. However, we have adopted a different definition to remain sensitive to the fact that the specific characteristics listed as universal in GEC guidance are in fact changeable (e.g. gender and disability). Additionally, perpetuating these as universal constructs may cause harm to sub-groups of children by re-enforcing existing and arguably oppressive structures of language. Guidance reviewed to inform this definition: *GEC Thematic Review "Understanding and Addressing Educational Marginalization" (2018)*

outcomes. Where baseline data collected by the previous evaluator allows, this chapter reports on changes in these barriers and characteristics amongst marginalized girls targeted by the project between Baseline and Midline. Within later chapters of the report, specific project quality education outcomes, including learning and transition, are analysed, and reported for each of the sub-groups of girls identified in this chapter.

This study segments data by these population sub-groups, to support the project to review and identify approaches to deliver differentiated treatment to the most marginalized.

4.1 Barriers & Characteristics

The project has identified several characteristics which result in girls being at risk of or facing educational marginalization. Several of these characteristics were captured by the previous evaluator at Baseline and were followed up on at Midline. Others were measured only at Midline.

An overview of the composition of the cohort with regards to these specific characteristics is shown in the table following.

Table 3. Characteristics of Evaluation Groups between Periods[45]

Characteristic	Control		Treatment	
	BL (%)	ML (%)	BL (%)	ML (%)
Single Orphan [b]	-	11.0%	-	10.2%
Double Orphan [b]	-	3.7%	-	3.6%
Orphan (either) [b]	-	14.7%	-	13.8%
Lives in female-headed household[46]	32.9%	30.1%	29.8%	28.3%
Head of Household has no formal education	41.2%	56.2%	43.6%	53.2%
Girl does not speak the LOI [b]	-	10.2%*	-	6.4%*
Head of Household does not speak the LOI [b]	-	16.5%	-	13.8%
Living in household below the national poverty line [b]	-	26.8%	-	26.8%
Living in household below the international poverty line ($1.90 per day) [b]	-	31.4%	-	31.5%

[45] We aimed to preserve the composition of the tracked cohort at Midline, despite being unable to match cases at the individual level due to a lack of cohort tracking information matched to unique IDs. Therefore, although we cannot measure a "change" in characteristic status for specific girls, the Midline focuses on reporting aggregate changes in composition of the cohort between periods (where this is possible based on available baseline data)

[46] This sub-group of girls may face additional risks of marginalization in a patriarchal society where males are typically viewed as household income earner; we have separated this population to explore this further

Characteristic	Control		Treatment	
	BL (%)	ML (%)	BL (%)	ML (%)
HHS faces extreme hardship[47] [b]	-	6.8%	-	6.4%
HoH Unemployed or not paid in cash or kind for work	28.3%	56.5%	20.6%	55.3%
Household has lived in village for less than 10 years[48] [b]	-	12.3%	-	8.7%
Girl attended pre-school[49] [b]	-	80.5%	-	82.2%
Girl is mother [b]	-	0.6%	-	0.0%
Girl has given birth [b] [a]	-	0.3%	-	0.4%
Girl has been pregnant [b] [a]	-	0.6%	-	0.2%
Girl is currently pregnant [b] [a]	-	1.2%	-	0.9%
Girl is married or living with a man as if married [a]	1.0%	1.0%	1.2%	2.0%

[a] *Proportion of girls over the age of 11 who have started menstruating; Only asked to girls who met these criteria*

[b] *Not captured by previous evaluator at Baseline or not captured in merged dataset which includes learning data from baseline i.e. data reported by previous evaluator may be for different cohort (other than learning and transition cohort)*

**Statistically significant association according to Chi-square test ($p<0.05$) for this characteristic and evaluation status for period in question*

There are largely no main differences in the composition of the control and treatment group by characteristic at either Baseline or Midline.

The only statistically significant association identified, was for girls who cannot speak the language of instruction. At Midline, according to Chi-square tests, girls who cannot speak the language of instruction are more likely to be in the control group. This may suggest that the project has supported girls to improve their literacy skills. However, due to the absence of reliable literacy data at Baseline, this finding cannot be fully verified. No other characteristics were associated with evaluation group membership at either period according to Chi-square tests.

The Language of instruction in Ethiopia is local language in primary grade levels and English in secondary grade levels. In South Gondar and South Wollo the language of instruction is Amharic in primary school, while in Arsi the language of instruction is Afaan Oromo in primary school.

Of the 6.4% of girls who do not speak the language of instruction, 73.6% of girls in the treatment group are in South Gondar, 13.2% are in South Wollo and 13.2% are in Arsi.

[47] Defined as a household being more than 58% likely to fall below international poverty line; based on 8 item Poverty Scorecard (2011)

[48] Ethiopia has the highest proportion of displaced people in the world; while a minority of the population sampled have lived in their village for less than 10-years we chose to monitor this group; Additionally, living in one's village for a shorter period may result in households being less embedded in the community and therefore less reliant on traditional community resilience structures

Most of these girls are in lower grade levels 54.7% are in grade 5 – grade 7 at Midline.

The majority of heads of households in both the treatment and control group at Midline have had no formal years of schooling and are unemployed or not paid in cash or in kind for their work. The proportion of households meeting these descriptors have increased for both groups between Baseline and Midline. At Baseline, in the treatment group for example 20.6% of household heads were unemployed or not paid for their work, compared to 55.3% at Midline. A similar increase was exhibited by the control group (28.3% unemployed at baseline compared to 56.5% at Midline). This suggests that, on the whole, households may be worse off economically at Midline than at Baseline. This is likely to have an influence on girls' educational outcomes. This influence will be explored throughout within the report chapters on specific outcomes targeted by the project.

To understand poverty at Midline the study measured poverty through the Poverty Propensity Index, developed for Ethiopia based on data from the 2010/11 HCES and from the 2011 WMS, collected by Ethiopia's Central Statistical Agency (CSA). This approach has been used to estimate the likelihood that a household has consumption below a given poverty line, to estimate the population's poverty rate[50], and to track changes in the poverty rate of each evaluation group overtime. The index is based on responses to 8 items. For the purposes of this study, we have used the poverty likelihoods for both the national poverty line ($1.50 per day) and the international poverty line ($1.90 per day).

26.8% of households in the control group and treatment group live below the national poverty line of $1.50 per day. 31.4% of households in the control group and 31.5% of households in the treatment group live below the international poverty line of $1.90 per day. These findings suggest that a third of households are economically marginalized.

To understand the circumstances facing these households and the influence of poverty on wider outcomes, we categorized households with propensity scores of 58% or higher for falling below the international poverty line ($1.90 per day) as facing extreme economic hardship.

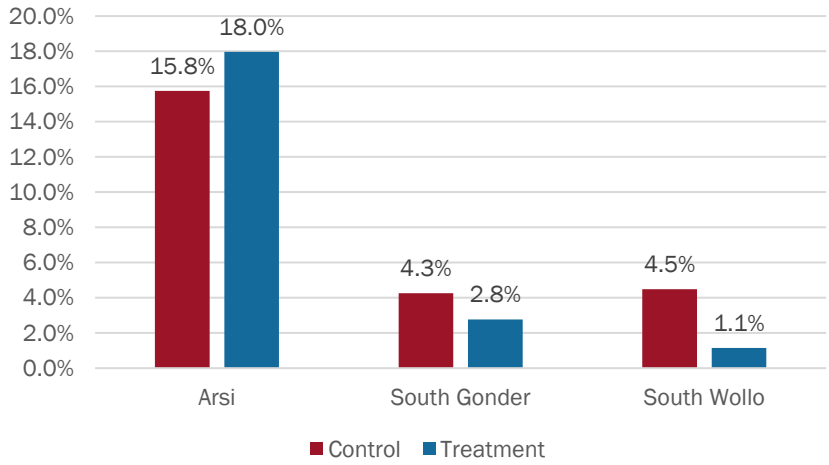
6.8% of households in the control group and 6.4% of households in the treatment group face extreme degrees of economic hardship. The majority of these households are in Arsi. 15.8% of households in the control group in Arsi and 18% of households in the treatment group in Arsi are likely to face extreme economic hardship.

The project has explained that this may be due to the fact that households in Arsi have larger families due to acceptance of polygamy. According to the DHS

[50] The approach assigns everyone in the household the same poverty propensity score for specific poverty lines; for additional details on the scorecard please review Mark Schreiner (2016) Simple Poverty Scorecard® Ethiopia

survey, 14% of married women in Oromia are in polygamous unions compared to only 1% in Amhara[51]. Additionally, households in this region have higher birth rates.

Figure 4. Proportion of Households likely to face Extreme Economic Hardship at Midline by Evaluation Group & Zone



14.7% of girls in the control group and 13.8% of girls in the treatment group are either single or double orphans. Debede (2009) similarly reports that orphans make up around 13% of the population of total children in Ethiopia. Debede further reports that orphans in Ethiopia are at increased risk of dropping out or not enrolling in school. This report will further explore the extent to which this sub-group experiences reduced educational outcomes.

A chi-square test finds a statistically significant association between being an orphan and being married for the treatment group ($p<0.05$). Anecdotal evidence suggests caregivers may believe that girls would be better cared for if they were married, especially if they did not have their own biological parents to care for them. The project should consider whether it should target messaging around the risks of early marriage to orphans.

Although only 2.0% of girls in the treatment group are married or living with a man as if married at Midline, this is almost double the proportion of girls that were married or living with a man as if married at Baseline. The proportion of girls in the control group that are married or living with a man as if married stayed the same between Baseline and Midline.

The project has suggested that the reason why more girls are married at midline than at baseline may be because girls have gotten older and are therefore more likely to marry. The project will conduct a full assessment of girls who have been married in treatment schools in response to these findings to fully understand the extent of early marriage in the target population.

[51] Ethiopia DHS 2016

Of girls who are married in the treatment group at Midline, 50% started living with their partner before they turned 18, and 25% of these girls have given birth. This suggests that girls who are married are more likely to give birth than girls who are unmarried. In the entire treatment population, only 0.4% of girls have given birth by Midline.

Of girls who are married or cohabiting as if married in the treatment group, 62.5% are in Arsi, 25% in South Gondar, and 12.5% in South Wollo.

1.2% of girls in the control group and 0.9% of girls in the treatment group are currently pregnant. A relatively small proportion of girls in both the treatment and control groups are mothers, have been pregnant, and have given birth.

Of girls in the treatment group who are currently pregnant, 75% are in South Gondar and 25% are in Arsi.

To understand the proportion of girls who experience a disability between periods, we administered the Washington Group Short set of questions. The Washington Group Short Set is designed to identify the presence of difficulty in six core functional domains: seeing, hearing, walking, cognition, self-care, and communication. Results are summarized in the table following.

Table 4. Disability based on Washington Group Short set by Evaluation Group and Period

Functional Difficulty Domain	Control		Treatment	
	BL (%)	ML (%)	BL (%)	ML (%)
Seeing	0.3%	1.7%	0.1%	1.4%
Hearing	0.3%	1.4%	0.1%	0.5%
Mobility	0.1%	0.3%	0.0%	0.7%
Cognitive (difficulty remembering or concentrating)	0.1%	1.0%	0.0%	1.0%
Self-care	0.0%	0.9%	0.0%	0.9%
Communication	0.0%	0.3%	0.0%	0.7%
Has functional difficulty in at least one domain	0.7%	3.9%* [a]	0.1%	1.8%* [a]

**Statistically significant association according to Chi-square test (p<0.05) for this functional difficulty and evaluation group for period in question (between evaluation group comparison)*
[an] Evaluation group is a statistically significant predictor of membership in given domain according to logistic regression (p<0.05) (between evaluation group analysis)

In line with the social model of disability, disability is understood as a form of social oppression, which is imposed on people with perceived impairments. Impairment refers to the relatively unchangeable biological condition, whereas disability arises out of the structure and organization of society, and therefore leads to disadvantages which can be lessened or removed through the re-organization of society. As disability, in these terms is not a fixed construct, it can change between periods for girls depending on changes in the extent to which the environment is inclusive and accessible, for example through the provision of specific supports or through the provision of assistive devices.

Across all domains, the proportion of girls who experience a functional difficulty increased between Baseline and Midline for both the treatment and control groups. At Baseline, 0.1% of girls had a functional difficulty in at least one domain in the treatment group, compared to 1.8% at Midline. In the control group, 0.7% of girls had a functional difficulty at Baseline, compared to 3.9% at Midline. This suggests that either, the way these questions were administered at Baseline was different to how they were administered at Midline, or the environment has heightened girls perceived functional difficulty in various domains between periods.

The fact that the proportion of girls with functional difficulty in all domains increased between both periods, suggests that the project should consider how to better support girls who experience disabilities, in addition to the supports already provided. Currently the project provides girls with disabilities with assistive devices and trains teachers on inclusive teaching practices. Later sections of the report will look further at the sub-group of girls who experience functional difficulties, their learning and transition outcomes, and the extent to which the teaching and learning environment is inclusive and accessible.

While the proportion of girls who experience a disability in the control group also increased between Baseline and Midline, it increased at a higher rate than increases exhibited in the treatment group. This suggests that although more girls face functional difficulties at Midline than at Baseline in the treatment group, the project may have played a role in reducing functional difficulty for some girls with disabilities. Chi-square tests further support this finding. Having a functional difficulty at Midline in at least one domain is associated at statistically significant levels with being in the control group. Girls in treatment schools who experience specific functional difficulties are provided with assistive devices including - glasses, braille kits, and audio machines.

The main barriers experienced by girls in both the treatment and control group between periods is shown in the table following. Barriers and changes in barriers are discussed after the presentation of results. To further understand barriers, Chi-square tests were conducted to assess the extent to which specific barriers are associated with evaluation group membership.

Table 5. Barriers by Evaluation Group between Periods[52]

Barrier	Control		Treatment	
	BL (%)	ML (%)	BL (%)	ML (%)
Safety and Child Protection				
Girl travels over an hour to get to school [b]	-	8.9%	-	9.1%
Girl does not feel safe traveling to school [b]	-	8.3%	-	7.5%
Girl does not feel safe at school	3.2%*	4.0%	1.4%*	3.6%

[52] We aimed to preserve the composition of the tracked cohort at Midline, despite being unable to match cases at the individual level due to a lack of cohort tracking information matched to unique IDs. Therefore, although we cannot measure a "change" in barriers for specific girls, the Midline focuses on reporting aggregate changes in composition of the cohort between periods (where this is possible based on available baseline data)

Barrier	Control		Treatment	
	BL (%)	ML (%)	BL (%)	ML (%)
In the past week, girl has been punished physically by her teacher [b]	-	11.1%	-	9.6%
In the past week, girl has witnessed the teacher physically punish other students [b]	-	25.8%*	-	20.3%*
Parents/caregivers punish girl physically at home [b]	-	41.5%	-	39.2%
Girl is currently being bullied [b]	-	8.9%	-	9.2%
Girl has been bullied [b]	-	3.7%	-	2.8%
Girl is often lonely at school [b]	-	26.4%	-	25.7%
Facilities				
Not enough seats for all children	15.2%*	20.0%*	3.5%*	13.1%*
Girl cannot move around school easily	3.2%*	10.1%*	1.5%*	6.7%*
Girl does not use drinking water facilities at school	21.7%	44.1%*	19.7%	35.2%*
Girl does not use lunch spaces [b]	-	67.2%*	-	59.3%*
Girl does not use play areas at school	7.7%*	34.1%*	1.1%*	24.6%*
Girl does not use toilets at school	12.0%*	24.5%*	4.5%*	15.0%*
Toilets at school are not accessible to girl according to parents/caregivers [b]	-	26.6%*	-	15.9%*
Sexual and Reproductive Health				
Girl finds it hard to access sanitary wear to support with menstruation [a b]	-	22.4%	-	9.7%
No one has spoken to girl about menstruation [a b]	-	0.0%	-	0.1%
Girl has no one to ask questions to about SRH [a b]	-	25.8%	-	24.8%
Girl does not know any modern method of contraception (including abstinence) [a b]	-	45.1%*	-	34.8%*
Girl is not able to get a condom if they wanted to [a b]	-	47.5%	-	45.7%
Teaching and Learning Environment				
Girl believes teacher treats boys and girls unequally	33.2%*	4.9%	25.7%*	3.0%
Teacher is often absent from class	30.6%*	26.1%	20.5%*	22.2%
Parent/caregiver rates the teaching quality at the school as poor [b]	-	6.1%*	-	2.4%*
Parent/caregiver rates performance of principal at school as poor [b]	-	4.7%*	-	1.6%*
Home environment & personal beliefs				
Girl has high chore burden (spends several hours per day doing chores) [b]	-	28.0%	-	29.2%
Girl says doing chores makes it difficult to do schoolwork [b]	-	17.2%	-	14.8%
Girl reports that she does not get support from family to stay in and learn in school [b]	-	7.4%	-	6.9%
Girl says she cannot choose whether to stay in school but has to accept what others decide for her [b]	-	32.3%	-	31.6%
Girl believes girls do not have a right to education [b]	-	1.5%	-	1.0%
Girl believes it is not important for children to go to school [b]	-	0.1%	-	0.6%

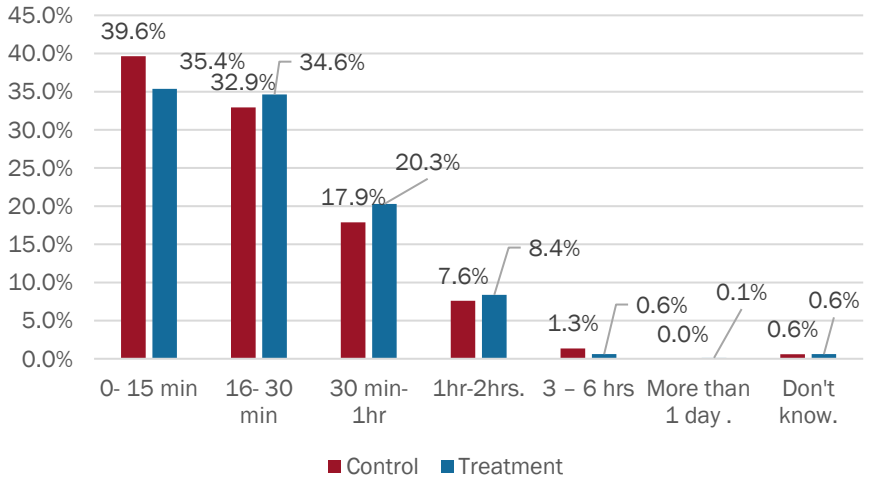
[a] *Proportion of girls over the age of 11 who have started menstruating; Only asked to girls who met these criteria*

**Not captured by previous evaluator at Baseline or not captured in merged dataset which includes learning data from baseline i.e. data reported by previous evaluator may be for different cohort (other than learning and transition cohort)*

**Statistically significant association according to Chi-square test (p<0.05) for this characteristic and evaluation status for period in question*

8.9% of girls in the control group and 9.1% of girls in the target group take over an hour to get to school. Of these girls in the treatment group, 98.7% walk to school.

Figure 5. Time taken to get to school by Evaluation Group

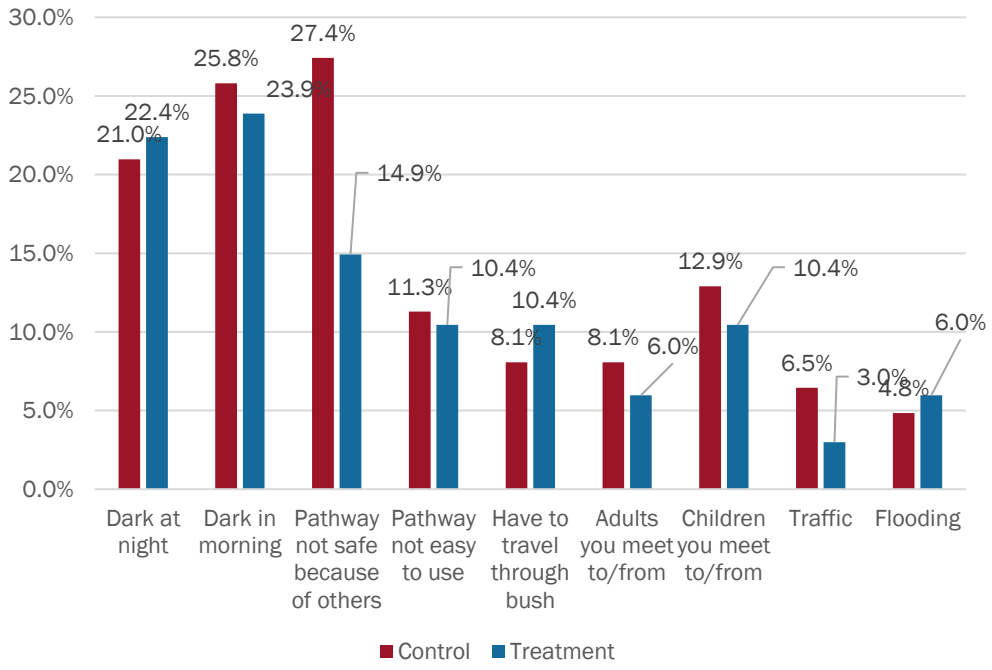


Girls who spend an hour traveling to school are almost three times as likely to not feel safe doing so. Chi-square testing finds a statistically significant association between spending over an hour traveling to school and not feeling safe on the way to school. Girls who spend more time getting to school are more likely not to feel safe traveling to school, at statistically significant levels ($p<0.05$). In the treatment group, while 7.5% of girls on the whole do not feel safe traveling to school, 20.0% of girls who spend an hour or more traveling to school do not feel safe traveling to school.

All girls who felt unsafe traveling to and from school were asked why they felt unsafe. The most common reason girls felt unsafe on the way to and from school was because it was either dark in the morning or dark at night. This may explain why a higher proportion of girls who live further away feel unsafe traveling to and from school.

While 27.4% of girls in the control group did not feel safe on the pathway to school because of others, only 14.9% of girls in the treatment group felt unsafe on the pathway because of others. This finding suggests the project may be playing a role in supporting girls to feel safer going to and from school by reducing the risks they face due to others on they may meet on the path, through the buddy system and other awareness raising activities.

Figure 6. Reason Girls Felt Unsafe Traveling to and from School

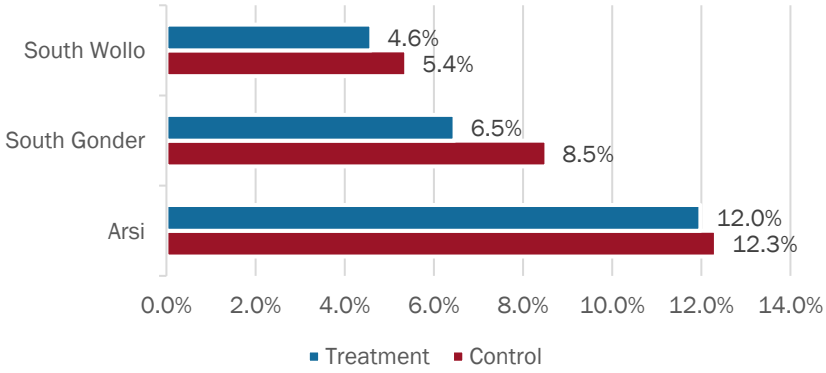


A higher proportion of girls in Arsi do not feel safe traveling to and from school, compared to other districts. This could be caused by the sporadic public unrest in Arsi. Project staff have commented that the risk of abduction of girls for early marriage may be more common in Arsi. Abduction in this sense usually involves the family of the girl and/or the family of the potential husband. The project has suggested that this may be due to the fact that schools in Arsi are in areas of dense busy and rugged topography.

Across zones, a slightly higher proportion of girls in the control group felt unsafe traveling to school than in the treatment group. This suggests that the project may have play a role, supporting girls to feel safe traveling to and from school.

The project has been addressing safety on the way to and from school by establishing a buddy system where girls are encouraged to walk to school in pairs or groups. The project will also consider setting up community Link Letter Boxes to support girls to feel safer and facilitating reporting of abuse at the community level.

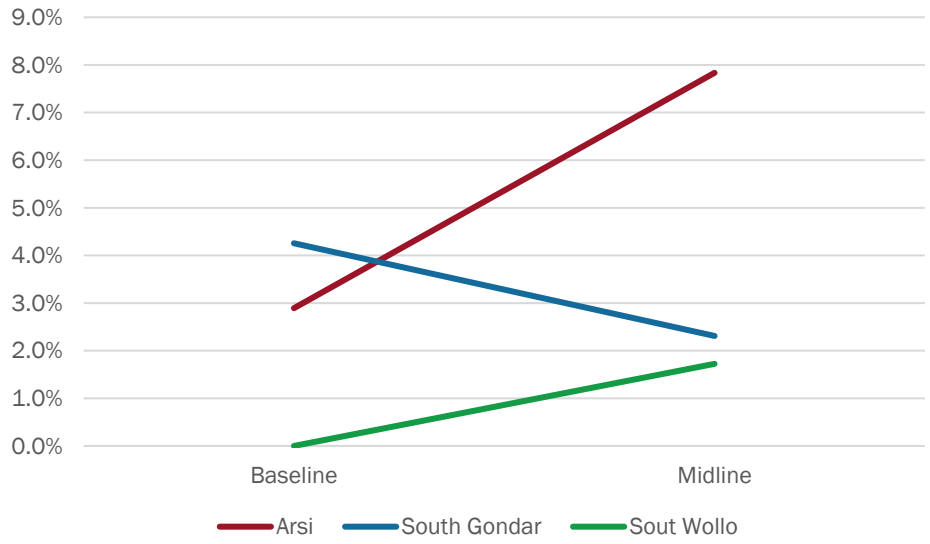
Figure 7. Proportion of Girls who Feel Unsafe Traveling to and from School - by Zone

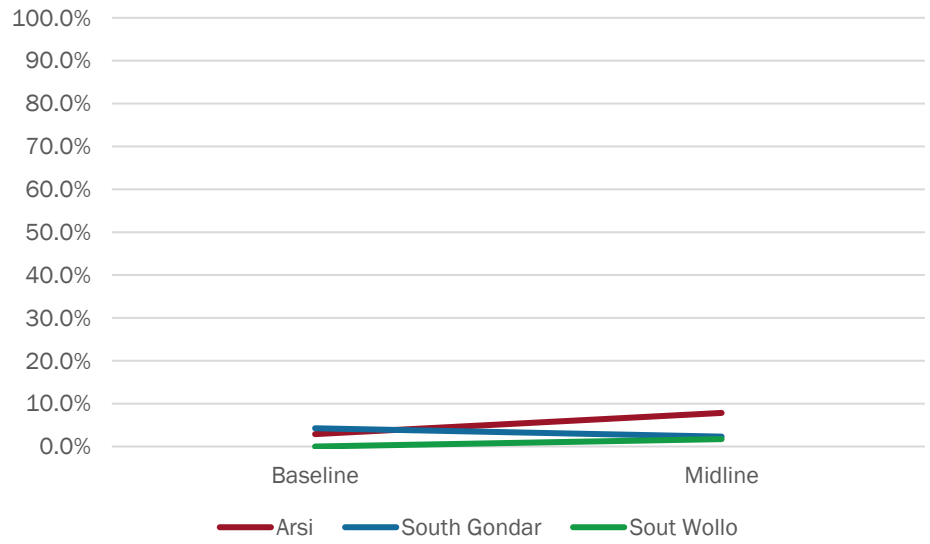


Between Baseline and Midline, the proportion of girls who do not feel safe at school in both the treatment group and control group increased. At baseline 1.4% of girls in the treatment group did not feel safe at school, compared to 3.6% at Midline. At Baseline 3.2% of girls did not feel safe at school in the control group, compared to 4.0% at Midline. Furthermore, whilst at Baseline, not feeling safe at school was associated at statistically significant levels with being in the control group, this association is no longer significant at Midline, where the groups are more comparable.

The proportion of girls who do not feel safe in school increased in both Arsi and South Wollo but not in South Gondar, where the proportion of girls who do not feel safe in schools decreased. Arsi exhibited the greatest increase between Baseline and Midline, suggesting there are girls have specific safety concerns at schools in Arsi.

Figure 8. Proportion of Girls who do not feel safe in school between Evaluation Periods (Treatment Group Only)



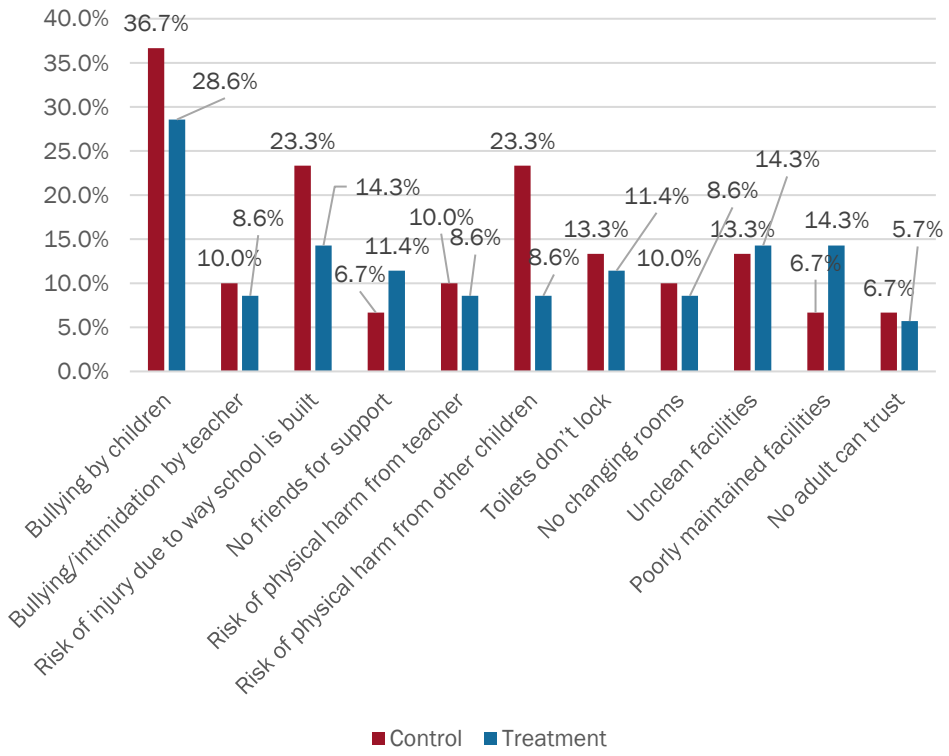


The most common reason girls in both the control and treatment group felt unsafe in school was because of bullying by other children. All girls who felt unsafe were asked why they felt unsafe. A higher proportion of girls in the control group listed bullying as a reason than in the treatment group: 36.7% compared to 28.6%. This suggests that bullying may be more prevalent in control schools than in treatment schools, likely due to the role of the project. Project staff also suggest that this may be due to the fact that girls in treatment schools are better prepared to handle bullying due to project activities.

In the control group this was followed by risking injury due to the way the school is built (23.3%) and risk of physical harm by other children (23.3%). In the treatment group the next most common reasons were risk of injury due to the way the school is built (14.3%) and that facilities are unclean (14.3%).

A much larger proportion of girls in the treatment group than in the control group reported that they did not feel safe because they had no friends for support. In the control group 6.7% of children reported this as a reason, whilst in the treatment group 11.4% reported this as a reason. The study also asked girls whether they felt lonely at school. 26.4% of girls in the control group and 25.7% of girls in the treatment group feel lonely often. Later chapters of this report will review if feeling lonely has an effect on target educational outcomes including learning, transition, and life skills.

Figure 9. Reasons for feeling unsafe at school

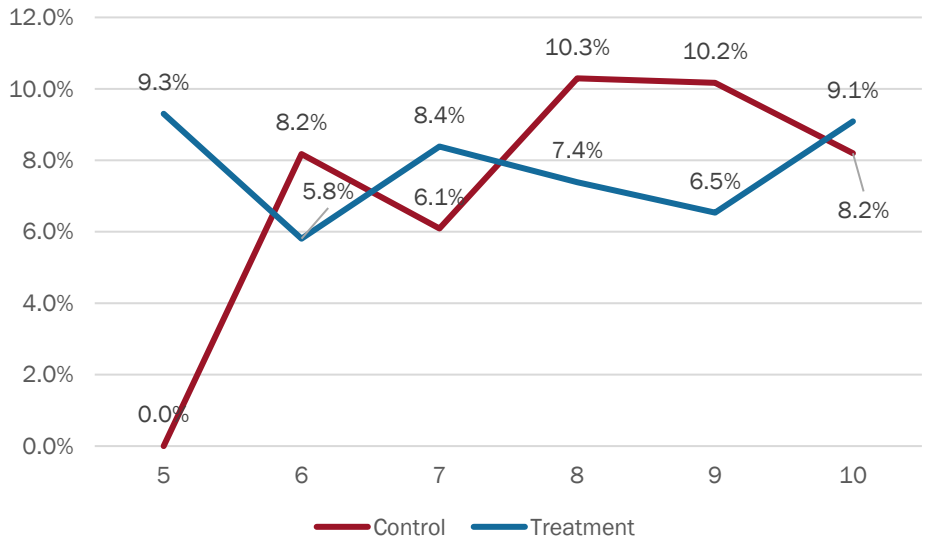


The figure following displays the proportion of girls who feel unsafe at school by evaluation status and grade level.

Findings suggest that in the treatment group the highest proportion of girls to feel unsafe at school are in Grade 5, followed by girls in Grade 10 at Midline. In the control group Grade 8 and 9 exhibited the highest proportion to feel unsafe at school.

In most grade levels, except Grade 5 and Grade 10, a higher proportion of girls in control schools felt unsafe at school than in treatment schools. This suggests that project activities may have played a role in supporting school safety.

Figure 10. Girls who feel unsafe at school by grade



8.9% of girls in the control group and 9.2% of girls in the treatment group are currently being bullied. 3.7% of girls in the control group and 2.8% of girls in the treatment group have been bullied before. These findings suggest that bullying is a challenge for girls in both treatment and control schools.

Project staff have explained that one reason a slightly higher proportion of girls in treatment schools are currently being bullied is that they are better able to identify bullying due to awareness raised in project activities. This could be the case, despite the fact there is no statistically significant association according to Chi-square tests between currently being bullied and evaluation status at Mid-line, which suggests that there is little difference between treatment and control in this regard.

Only 7.7% of girls in the treatment group who are being bullied have reported this to someone. 89.3% of girls who are being bullied in the treatment group have not reported this to anyone and 1.4% of these girls refused to answer this question. These findings suggest that girls do not feel comfortable reporting bullying. However, a majority of girls in the treatment group do believe that if they reported it teachers will act on it (76.5%).

One possible explanation for the fact that a large proportion of girls in treatment schools do not report bullying despite thinking that teachers will act on the report, is that they may fear the backlash from their peers of reporting to a teacher. This will be further explored by the project through participatory sessions as part of on-going monitoring.

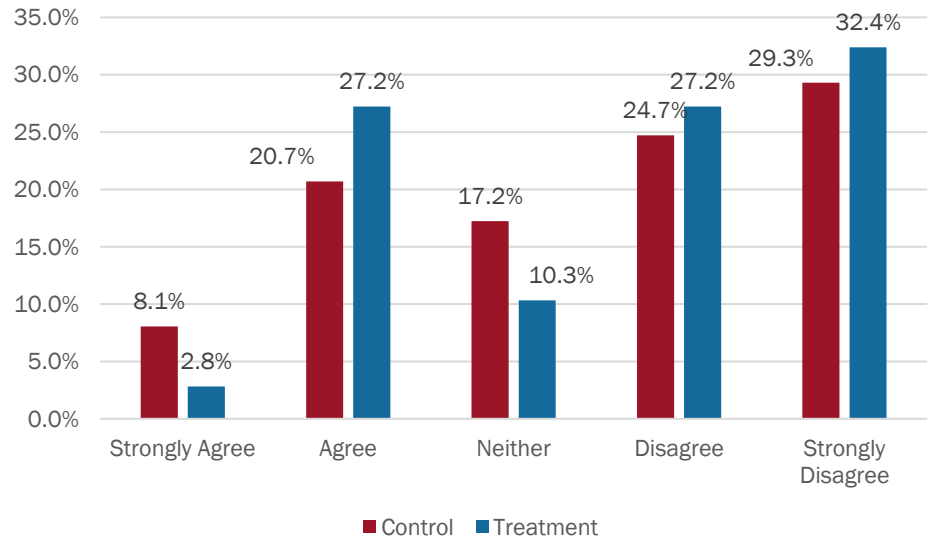
11.1% of girls in the control group and 9.6% of girls in the treatment group have been physically punished by their teacher in the last week. This finding suggest that corporal punishment is widespread in schools sampled. The negative effects of corporal punishment on psycho-social outcomes, educational achievement, and other quality education outcome domains is well documented in the literature.

25.8% of girls in the control group and 20.3% of girls in the treatment group have witnessed their teacher administer corporal punishment on another student. Despite the fact that this proportion of girls is high for both groups, there is a statistically significant association between witnessing corporal punishment and being a member of the control group, according to Chi-square tests. This suggests that girls in control schools are more likely to witness corporal punishment than in treatment schools, signalling that the project may have played a role in supporting teachers to implement different strategies to discipline students.

Based on findings from Midline around corporal punishment, the project will communicate principals and teachers that corporal punishment should not be taking place in intervention schools.

CHADET has conducted training with teachers to support them to change their practices and adopt positive and restorative ways to discipline students. To understand teacher attitudes towards this, we asked them to what extent they agree with the statement "Sometimes children require physical punishment (e.g. caning) to be able to discipline them".

Figure 11. Sometimes children require physical punishment (e.g. caning) to be able to discipline them



30.1% of teachers in the treatment group and 28.7% of teachers in the control group agreed that it is sometimes necessary to physically punish children.

Based on these findings collectively and the high prevalence of corporate punishment, CHADET should consider additional ways to reduce the prevalence of corporal punishment in target school.

It should be noted that not all teachers in schools targeted by the project receive training from CHADET and therefore are not all expected to make changes to

their practices. Teachers who facilitate homework clubs are trained by the project to adopt improved practices.

In qualitative sessions, many teachers report that they think that it is acceptable to physically punish students although some disagreed, signalling the project has started to play a role in changing attitudes.

Across all discussion groups, many teachers seemed to think that it was not acceptable to beat or cane a student. For instance, one teacher said, "*No, beating is not important. This is not a way to discipline students. Beating does not bring change*."[53]

In another discussion group, one teacher said that physically punishing a student displayed an inability to teach, "*Beating a student shows the lack of ability to teach. But in the world, we live in now there is no beating students. It is unthinkable.*"[54]

Similarly, another participant in the same group said, "*The concept of caning is outdated… Few might use it but for me there is no beating students*."[55]

Other participants also seemed to think that caning a student at school was inappropriate. One teacher said, "*I do not think it is appropriate. Advising is more effective.*"[56]Another said, "*It is not acceptable. A student won't improve with those kinds of measures.*"[57]

When teachers were asked how else they discipline students, one participant said, "*There is guidance to discipline students when they misbehave, usually we try to handle by providing advice.*"[58]

This sentiment was witnessed across all districts where teachers were interviewed. For example, a teacher from South Gondar said, "*When I see bad behaviour, I approach the students and give them advice. I also advise my students openly in the class in front of all students*."[59]

Another teacher from the same group also said, "*I first give them advice that disturbing is not good, and when they make mistakes, I take them alone and advise them too.*"[60] All five participants in the discussion said that they primarily advise students when they exhibit disorderly behaviour.

In South Wollo, teachers also advise students when disciplining them. As one teacher said, "*There is a saying in the English language, 'the valuable thing that you can give a person is a useful idea.' I use advise to discipline students.*"[61]

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[53] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi
[54] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo
[55] Ibid.
[56] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo
[57] Ibid.
[58] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi
[59] FGD with Literacy and Numeracy Trained by CHADET, South Gondar
[60] Ibid.
[61] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo

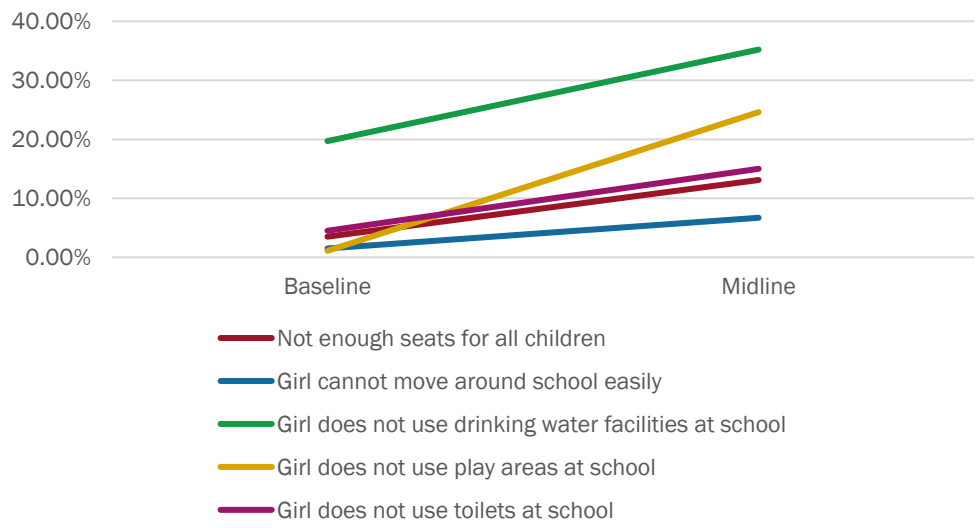
It is also common for parents to use corporal punishment to discipline their children. 41.5% of parents in the treatment group and 39.2% of parents in the control group use corporal punishment to discipline their children at home. These finding highlight how entrenched corporal punishment is within the culture of disciplining children.

Teachers, children, and parents live in communities where it is accepted and common for children to be hit, slapped, and caned. Physical punishment is seen as a healthy part of how you teach good behaviours. The project should critically reflect on how it can best promote behaviour change when it is so pervasive and accepted. Discussions with project staff highlight that this will likely require a collective effort from parents, community members, legal bodies, and government and that the project cannot make this change on its own.

Findings indicate that facilities and use of facilities has worsened between Baseline and Midline for both the treatment and control groups. The proportion of girls who report that there are not enough seats for children, that they cannot move around school easily, that they do not use drinking water facilities at schools, that they do not use play areas at schools, and that they do not use the toilet facilities at schools have increased for both groups. Results for the treatment group on these outcomes are displayed in the figure following.

These changes are difficult to explain but could be due to the fact that these questions were differently administered by the consultant hired at Baseline. However, this could also be due to increased pressure on schools due to increasing enrolment rates due to project activities. The project is investigating this further.

Figure 12. Changes in facilities and facility use between Baseline and Midline for the treatment group



A large proportion of girls at Midline report that they do not use toilets in schools: 15% of girls in the treatment group and 12% in the control group. Most of these girls in the treatment group report that this is because they consider these facilities unclean and not acceptable for use (56%).

The study also identified several sexual and reproductive health related barriers to girls. Sexual and reproductive health questions were asked to girls over the age of 11, who had started menstruating. All proportions are therefore for girls over the age of 11 who have started menstruating.

9.7% of girls in the treatment group (who meet these criteria) and 22.4% of girls in the control group do not have access to sanitary menstrual wear. There is a large difference between the treatment and control group, suggesting that project activities to make sanitary pads more accessible have been successful.

A large proportion of girls do not have access to someone at their school to ask questions to about sexual and reproductive health: 24.8% of girls in the treatment group and 25.8% of girls in the control group. The project should consider how it can strengthen girls' club facilitators to provide this support to girls in treatment schools. Having access to someone to ask questions to about SRH could help prevent early pregnancy, early marriage, and the transmission of STIs when girls become sexually active.

34.8% of girls in the treatment group and 45.1% of girls in the control group do not know of any method to prevent pregnancy (including abstinence). This suggests that girls could be at risk to both early pregnancy and to the transmission of sexually transmitted infections when they become sexually active. Additionally, a large proportion of girls cannot get access to a condom even if they wanted one: 45.7% in the treatment group and 47.5% in the control group.

Girls face several barriers in their home environment. 29.2% of girls in the treatment group have a high chore burden, that is they conduct chores for 2 hours per day. 17.2% of girls in the control group and 14.8% of girls in the treatment group report that doing house chores makes it difficult for them to do school work.

32.3% of girls in the control group and 31.6% of girls in the treatment group report that they cannot choose whether to stay in school and have to accept what others decide for them. This indicates that girls have limited agency when deciding to stay in school. The project should consider whether it should re-engage parents and caregivers through outreach activities to ensure girls can stay and are supported to continue school.

4.2 Intersectionality

To understand how barriers and characteristics intersect to produce additional forms of exclusion and educational marginalization, Table 6 reports findings for the intersection of key barriers and characteristics. All barriers and characteristics were assessed but only those with statistically significant associations are shown in the table. Results of the intersectional analysis for other barriers and characteristics are included in Annex 4.

Associations through Chi-square tests were found for several characteristics and barriers at Midline.

There is a statistically significant association between being a double-orphan and not having anyone to speak to about sexual and reproductive health. This makes intuitive sense as double orphans do not have either of their biological parents and may not have any adult, they feel comfortable speaking with about SRH. The project should consider how it can support double orphans in particular to access SRH information. Earlier findings found that being an orphan was associated with early marriage and this could help explain some of why orphans are more likely to be married, as they also may not have access to an adult to speak to about the risk of early marriage.

Similarly, there is a statistically significant association between being a double-orphan or a single-orphan and not knowing how to prevent pregnancy. This is likely explained by the fact that double orphans are more likely to not have adults to speak to about SRH.

Orphans are more likely to feel that they do not have a choice as to whether they stay in school and that this choice is made by others. This suggests that double orphans face have reduced agency when compared to their peers.

Parents and caregivers who live in a household where the head of household does not speak the language of instruction are more likely to discipline their girls using corporal punishment. Additionally, in households where the girl does not

speak the LOI, the girl is more likely to be punished physically by her parents and caregivers.

Many barriers intersect with living in a household where the head of household has no formal education according to Chi-square tests. Girls who live in households whose head have no formal education are more likely to travel for over an hour to get to school, not feel safe traveling to school, not feel safe at school, witness physical punishment by a teacher, be physically punished at home, be bullied, have been bullied, not have enough seats for children in the classroom, report not being able to move around school easily, not use the drinking areas, lunch areas, or play areas at school, to not use the toilets at school, to not have access to sanitary pads, to not have an adult to speak to about SRH, to believe teachers treat boys and girls unequally, to believe their teachers are often absent, to have a high chore burden, to report that chores make it difficult to do school work, and to report that they are not supported by their parents to access and do well in school. The project should consider how it can better support girls living in these households and how to target parents that have low levels of education. This finding would suggest the project needs to adopt targeted outreach activities specifically tailored to parents with low levels of education.

Many barriers also intersect with living in a household where the head of household is unemployed. Girls in these households are more likely at statistically significant levels to travel over an hour to get to school, not feel safe at school, not feel safe traveling to school, witness physical punishment by a teacher in the last week, be punished physically by their parent/caregiver at home, currently be bullied, have been bullied, not have enough seats at school, report not being able to move around school easily, not use drinking facilities, lunch spaces, toilets, or play areas at school, to find it hard to access sanitary pads, have no one to ask questions to about SRH, to believe teachers treat boys and girls differently, to have a high chore burden, to report that chores makes it difficult to do school work and to report that they do not get support from their family to stay in and do well in school.

Economic hardship is associated with several key barriers for girls. Girls who live in households that are likely to face extreme economic hardship are more likely at statistically significant levels to have parents who punish them physically at home, report that there are not enough seats for all students, not use lunch spaces (perhaps because they do not have lunch), not know a method of contraception, have teachers who are often absent, and report that they cannot decide whether to stay in school but have to accepted what is decided by others.

Table 6. Intersection of Barriers and Characteristics in the Treatment Group

	Double Orphan ML	Single Orphan ML	Orphan (either double or single) ML	HOH Cannot speak LOI ML	Girl Cannot speak LOI ML	Household has no formal education	HoH Unemployed or not paid in cash or kind for work	Likely to face extreme economic hardship (likelihood 190>0.58)	Lived in village less than 10 years
Girl travels over an hour to get to school	13.3%	10.7%	11.4%	13.0%	9.4%	11.6%*	11.6%*	11.3%	9.7%
Girl does not feel safe traveling to school	16.7%	9.5%	11.4%	6.5%	3.8%	9.4%*	9.2%*	18.9%	6.9%
Girl doesn't' feel safe at school	10.0%	8.3%	8.8%	4.6%	5.7%	4.3%*	3.5%*	3.8%	5.6%
In past week girl witnessed teacher physically punishing other students	10.0%	23.8%	20.2%	27.8%*	26.4%	21.7%*	23.7%*	17.0%	27.8%*
Parents/caregivers punish girl physically at home	13.3%	22.6%*	20.2%*	50.0%*	52.8%*	43.2%*	44.5%*	24.5%*	36.1%*
Girl currently bullied	16.7%	10.7%	12.3%	8.3%	5.7%	8.2%*	9.2%*	11.3%	6.9%
Girl has been bullied	3.3%	1.2%	1.8%	2.8%	1.9%	2.7%*	2.9%*	1.9%	2.8%
Girl does not have access to computer at school	86.7%	70.2%	74.6%	72.2%	83.0%	81.7%*	74.8%*	84.9%	63.9%*
Not enough seats for all children	20.0%	16.7%	17.5%	11.1%	9.4%	13.5%*	9.6%*	30.2%*	11.1%
Girl cannot move around school easily	3.3%	11.9%*	9.6%	6.5%	5.7%	8.4%*	6.1%*	24.5%	4.2%
Does not use drinking water facilities	46.7%	39.3%	41.2%	26.9%	30.2%	35.8%*	39.5%*	39.6%	40.3%*
Does not use lunch space	73.3%	61.9%	64.9%	53.7%	54.7%	60.3%*	64.5%*	43.4%*	62.5%*
Does not use toilets at school	30.0%	15.5%	19.3%	11.1%	13.2%	14.6%*	14.9%*	18.9%	18.1%*
Toilets not accessible for girl at school	23.3%	13.1%	15.8%	20.4%	22.6%	17.1%*	13.8%*	22.6%	16.7%*
Does not use play areas at school	13.3%	20.2%	18.4%	25.9%	26.4%	22.6%*	23.2%*	22.6%	22.2%*
Girl finds it hard to access sanitary pads	13.3%	6.0%	7.9%	6.5%	9.4%	9.6%*	9.6%*	18.9%*	18.1%
Girl has no one to ask questions to about SRH	43.3%*	29.8%	33.3%*	19.4%	18.9%	24.9%*	25.9%*	34.0%	31.9%*

	Double Orphan ML	Single Orphan ML	Orphan (either double or single) ML	HOH Cannot speak LOI ML	Girl Cannot speak LOI ML	Household has no formal education	HoH Unemployed or not paid in cash or kind for work	Likely to face extreme economic hardship (likelihood 190>0.58)	Lived in village less than 10 years
Does not know modern method of contraception at ML	63.2%*	49.1%*	52.8%*	22.4%	22.7%	36.1%	32.0%	52.9%*	30.2%
Girl believes teacher treats boys and girls unequally	6.7%	2.4%	3.5%	1.9%	1.9%	2.5%*	2.6%*	7.5%	1.4%
Teacher often absent	23.3%	27.4%	26.3%	20.4%	17%	22.6%*	17.1%*	41.5%*	15.3%
Girl has high chore burden	26.7%	26.2%	26.3%	23.1%	22.6%	28.5%*	33.6%*	26.4%	38.9%*
Girl says doing chores makes it difficult to do school work	13.3%	15.5%	14.9%	13.9%	13.2%	16.4%*	15.4%*	11.3%	9.7%
Girl reports that she does not get support from family to stay in school and learn in school	10.0%	1.2%*	3.5%	5.6%	11.4%	8.9%*	6.6%*	3.8%	2.8%
Girl cannot choose whether to stay in school but has to accept what is decided for her	56.7%*	36.9%	42.1%*	26.9%	20.8%	34.2%*	31.1%*	60.4%*	19.4%

**Statistically significant association according to Chi-square tests (p<0.05)*

Chapter 4: Outcome Findings

5. Outcome Findings

5.1 Learning

Through improvements in girls' access to education, the home and community environment, and the quality of teaching, the project aims to support girls' literacy and numeracy learning.

At Baseline, the project measured two learning outcomes for all girls: local language literacy and numeracy. At Baseline, girls in older grade levels also completed 1 written English literacy reading comprehension task.

At Midline, the study measured girls learning in three outcomes: English literacy, local language literacy (either Afaan Oromo or Amharic depending on the zone, and numeracy.

Due to challenges with baseline literacy data (see Limitations), and after consultation with the Fund Manager, the team decided that it was not possible to assess changes in literacy between Baseline and Midline. Therefore, at Midline, achievements in literacy are discussed against the expected curriculum competencies and in relation to barriers and characteristics.

Changes in numeracy between Baseline and Midline, is measured through a single written subtask, as this was the only task that all girls took at Baseline that was written and therefore not prone to enumerator errors in administration.

Between Midline and Endline, the evaluation will follow a standard overlapping task approach to assess project impact on the three learning outcomes measured at Midline: local language literacy, English literacy, and numeracy.

The local language assessment at Midline was comprised of the following tasks:

- Letter sound identification assesses girls' phonological awareness; their ability to map sounds onto letters
- Invented word reading: Assesses ability of learners to make grapheme-phoneme correspondences (GPCs) through reading of simple nonsense words
- Short passage reading: A short reading passage to assess girls' oral reading fluency. Oral reading fluency (ORF) provides a well-documented measure of 'overall reading competence'[62]
- Basic reading comprehension: Comprehension is highly correlated with literacy and refers to a learner's ability to understand a text. It is measured

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

through a series of comprehension questions to assess understanding of the short passage.

The English language assessment at Midline was composed of the following tasks:

- Short passage reading: A passage to assess girls' oral reading fluency; a well-documented measure of overall literacy acquisition
- Basic reading comprehension: A basic comprehension tasks based on the short passage; assesses girls' ability to decode meaning from written text
- Advanced reading comprehension 1: Transition of primary to lower secondary: A longer, more complicated comprehension paragraph, with more analytical questions; girls provide written response to questions often worth multiple marks each
- Advanced reading comprehension 2: A longer, more complicated comprehension paragraph, with more inferential questions; also requiring written responses
- Essay composition written task (only girls in Grades 9 and 10): Measure written competency in English; only relevant to girls in upper grade levels

The numeracy assessment at Midline included the following tasks:

- Number identification: Number competence is reflected in counting procedures, fact retrieval, and accurate computation[63]; The ability to identify numbers is a basic skill necessary for advanced numeracy
- Quantity discrimination: Quantity discrimination describes the ability to distinguish the magnitude of various numbers. Performance on comparisons of numerical magnitude are predictive of later mathematical achievement[64]
- Missing number/pattern recognition: For this subtask, learners are asked to fill in missing numbers in a series of numbers forming a pattern. The ability to detect is an important early skill that can support later mathematical skills such as multiplication[65] and algebraic thinking[66]
- Addition and Subtraction: Addition problems assess the extent to which learners can combine numbers. Subtraction problems measure the extent to which learners can subtract one number from another. Arithmetic (addition, subtraction, multiplication, and division) serves as the foundation for the skills necessary in later mathematics and science education[67]
- Advanced written problems: In the multiplication and division subtask learners are required to answer a series of multiplication and division questions of varying difficulty; this subtask required learners to write responses to questions
- Multiplication, Division, Fractions and Geometry: This subtask is comprised of more advanced and complex problems including advanced multiplication and division, fractions, and geometry

[63] Jordan, Kaplan, Ramineni, & Locuniak, 2009
[64] De Smedt et al., 2009
[65] Geary, 1994
[66] Sarama & Clements, 2009
[67] Ashcraft, 1982

- More Advanced Written Problems: Advanced problems including equations with unknowns, simultaneous equations; also written

Assessments for local language literacy and numeracy were piloted and calibrated before Baseline to ensure assessments were of similar levels of difficulty. A pilot will take place again prior to Endline to ensure tools are comparable.

5.1.1 Numeracy

To create an aggregate numeracy score at and Baseline and Midline, the study utilized the single written task administered to all girls at Baseline: the Advanced Written Problems Task. This was because other tasks at Baseline exhibited counter-intuitive trends which did not match trends identified at Midline. For example, with all tasks which were administered by enumerators at Baseline girls generally decreased in proficiency as grade level increased. This trend was not observed at Midline, suggesting there could have been challenges with how tests were administered at Baseline.

The written task at Baseline did not depend on enumerator administration as it is self-administered. It also did not exhibit the same counter-intuitive trend. In response to these findings, the EE consulted the FM and together with the project agreed on using this single task to understand aggregate numeracy changes between Baseline and Midline. Based on the quality of the data at Baseline, there was no other viable option to reliably report on changes in numeracy between periods.

Between Midline and Endline, a standard approach with multiple overlapping subtasks will be used to aggregate numeracy scores and capture changes between periods. This will measure changes in numeracy using a wider range of tasks, reflective of the diversity of grade levels covered by girls in the tracked cohort, and reflective of multiple sub-domains of numeracy acquisition.

Table 7 displays aggregate numeracy scores by grade level at Midline based on the Advanced Problems Subtask.

Table 7. Numeracy Aggregate Scores at Midline (Advanced Written Problems Subtask)

Grade	Control Mean (%)	Treatment Mean (%)	Std. Deviation Treatment group
Grade 5	56.25%	46.58%	31.63
Grade 6	43.71%	56.49%	28.83
Grade 7	51.74%	58.75%	26.46
Grade 8	49.91%	64.56%	25.16
Grade 9	57.63%	70.14%	26.83
Grade 10	68.03%	78.41%	21.10
Overall	52.00%	62.77%	28.08

At Midline, in the treatment group, as grade level increases so does numeracy proficiency, based on mean results for the Advanced Written Problems Subtask.

This is less clear for girls in the control group, where average numeracy scores in grade 6 are higher than in grade 5, and higher in grade 7 than in grade 8.

However, a linear regression for both evaluation groups using grade at midline to predict numeracy levels demonstrates that grade level is a statistically significant predictor of numeracy levels. In the treatment group each additional grade level contributes to an average increase of 5.6% and in the control group each additional grade level contributes to an average increase of 4.7%, according to predictive models ($p<0.05$).

Table 8 displays aggregate numeracy scores by original grade level at Baseline (original cohort membership) for both evaluation groups, at both periods.

In all grade levels, aggregate changes in numeracy for the treatment group exceeded average changes in numeracy for the control group between periods.

Overall results demonstrate that girls in the treatment group on average improved their numeracy by 12.5% more than girls in the control group.

Table 8. Numeracy scores from Baseline to Midline (Advanced Written Problems Subtask)

Cohort	Control Mean (%)	Control Mean (%)	Mean Change	Treat. Mean (%)	Treat. Mean (%)	. Mean Change	Difference in difference
	BL	ML	Diff.	BL	ML	Diff.	DiD
Grade 5	24.8%	43.7%	+18.9%	21.1%	56.5%	+35.4%	+16.5%
Grade 6	23.3%	51.7%	+28.4%	24.3%	58.8%	+34.5%	+6.1%
Grade 7	23.8%	49.9%	+26.1%	23.3%	64.6%	+41.3%	+15.2%
Grade 8	25.1%	57.6%	+32.5%	20.4%	70.1%	+49.7%	+17.2%
Overall	24.4%	52.0%	+27.6%	22.7%	62.8%	+40.1%	+12.5%

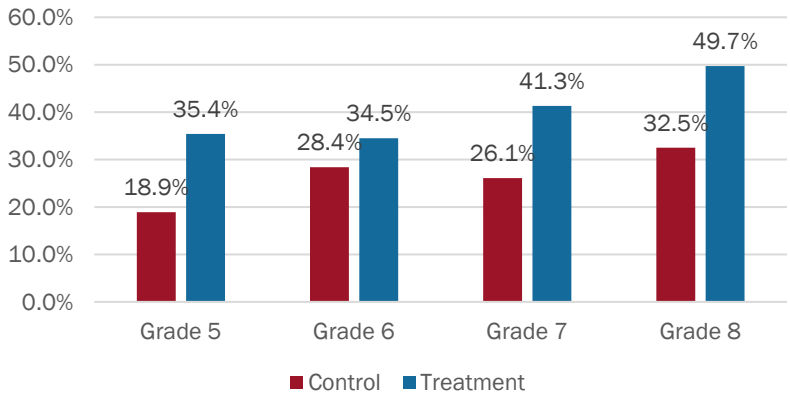
Figure 13 displays average mean changes in numeracy between baseline and midline by girls' original cohort membership.

The greatest improvement was exhibited by girls in Grade 8 at Baseline.

While both girls in grade 8 in the treatment and control groups improved their average numeracy levels, girls in grade 8 in the treatment group improved their average numeracy levels by 17.2% more than improvements experienced by girls in the control group. These findings indicate that on average the project was able to improve numeracy results over and above improvements in control between Baseline and Midline.

In the treatment group, girls in Grade 6 at Baseline experienced the least average improvement between baseline and midline but still improved by an average of 34.5% and exceeded the change experienced in control: 28.4%.

Figure 13. Mean Change in Numeracy between Baseline and Midline by Original Cohort Membership and Evaluation Group



The distribution of numeracy stores by evaluation status is shown in the figures following.

Figure 15. Distribution of Numeracy Scores Treatment Group Baseline (left) Midline (right)

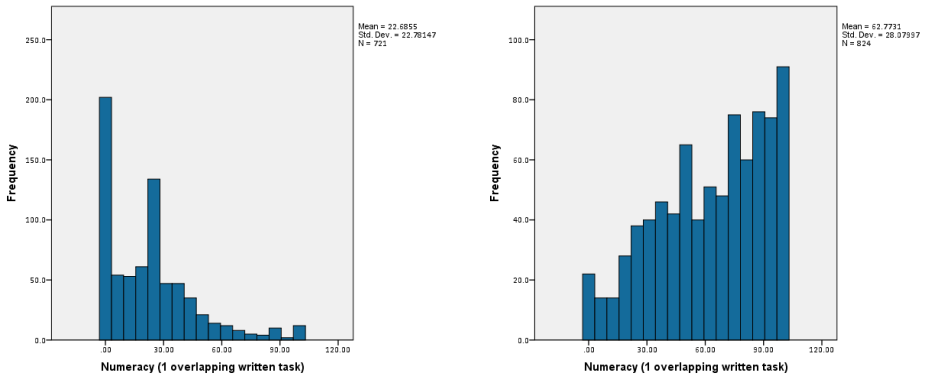
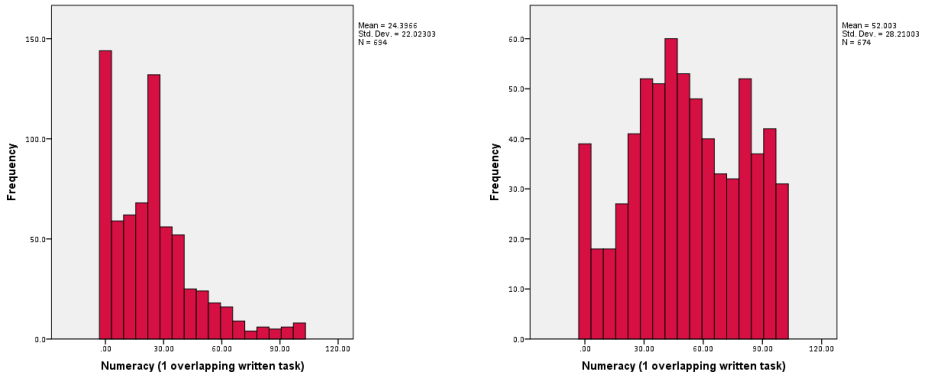


Figure 15. Distribution of Numeracy Scores Control Group Baseline (left) Midline (right)



At baseline, distributions of numeracy scores for both evaluation groups exhibited a leftward skew with most girls not scoring very high. This is likely due to the fact that at baseline, most girls were in lower grade levels (Grade 5-Grade 8) and likely had not covered the necessary skills to complete advanced written problems. At Midline, the distribution of scores for the treatment group exhibits a rightward skew, suggesting more girls had become able to successfully complete more advanced written problems than at baseline. Changes in the distribution of numeracy scores for the control group at Midline were more moderate, and the modes would suggest that most girls achieved average scores on the task at Midline.

To understand project impact on numeracy at Midline, we adopted a cross-sectional approach using treatment, time, and an interaction variable (time x treatment) to predict numeracy levels. The cross-sectional approach consists of estimating the difference-in-difference coefficient and standard error starting from an equation in aggregate levels of the learning outcomes rather than individual changes.

This approach was taken as baseline learning data for all girls was not matched to a sufficient number of unique IDs and names to enable us to merge learning data at the individual level (see Limitations for more information).

Results for the cross-sectional analysis are shown in Table 9.

Table 9. Project Impact on Numeracy (Cross-sectional approach)

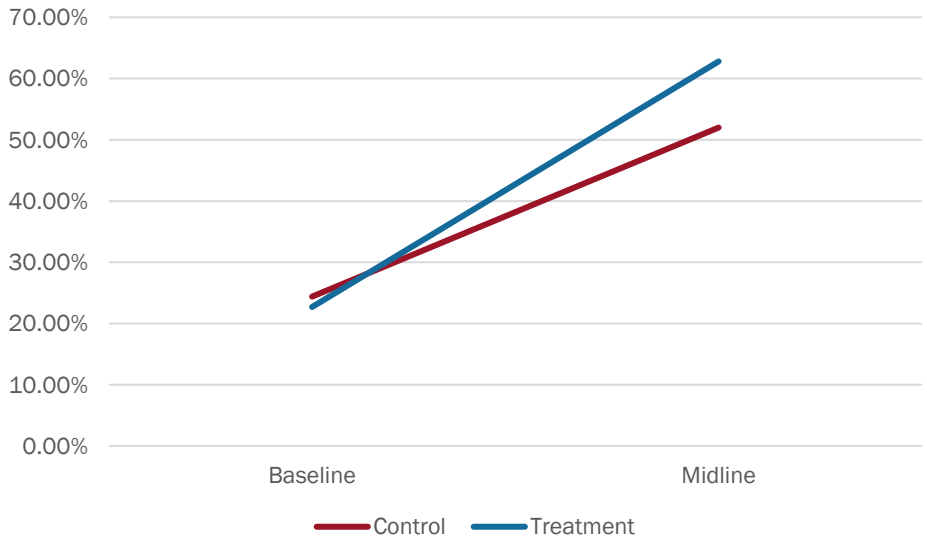
Result	Details	Comments
Numeracy Baseline – Midline (Cross-sectional approach)	Beta =12.481 p-value = 0.000 (p<0.005) Target = Performance against target = %	Results indicate that the interactional variable was a statistically significant predictor of numeracy levels, suggesting the project had a statistically significant impact on numeracy outcomes between periods.

The cross-sectional model determines that the project has had a statistically significant impact on numeracy outcomes between Baseline and Midline.

The interaction variable (time x treatment) was a statistically significant predictor of numeracy levels ($p<0.05$; Beta=12.481; $R^2=0.323$). The model was able to explain 32.3% of variance in the data. On average girls who were in the treatment group at midline scored 12.48% higher than girls in the control group at Midline and girls in the control group at baseline.

Average changes in numeracy levels are displayed in the figure following. On average, the treatment group visibly increases numeracy levels at a greater rate than the control group. While at Baseline, girls in the treatment group had on average lower numeracy levels, by Midline girls in the treatment group on average score higher than girls in the control group.

Figure 16. Average Numeracy Levels between Periods by Evaluation Group



Subsequent sections of the report seek to explain what caused numeracy improvements, within each intermediate outcome sections analyses have been conducted to explore the relationships between numeracy levels and specific project components. Additionally, the section on predictors of learning seeks to explore the relationships between other variables and numeracy.

In order to identify discrete numeracy skills gaps, scores were categorized into achievement score bands. These bands were established following FM guidance and were applied across all GEC-T projects.

Results for each of the subtasks across these score bands for girls in the treatment and control groups are shown in the table following.

Table 10. Numeracy Score Band Performance by Subtask and Evaluation Group at Midline

Subtask		Categories			
		Non-learner	Emergent learner	Established learner	Proficient learners
Score band		0%	1-40%	41-80%	81-100%
Subtask 1 *Number Identification*	C	0.0%	1.2%	10.9%	87.9%
	T	0.2%	0.7%	12.6%	86.5%
Subtask 2: Quantity Discrimination	C	0.8%	0.8%	16.8%	81.6%
	T	0.2%	0.5%	13.1%	86.2%
Subtask 3: Missing Number / Pattern recognition	C	2.2%	30.5%	54.7%	12.5%
	T	1.2%	20.8%	55.4%	22.6%
Subtask 4: Addition and Subtraction	C	0.4%	12.6%	58.0%	28.9%
	T	0.1%%	8.4%	49.2%	42.4%
Subtask 5: Advanced Written Problems	C	5.8%	30.7%	39.5%	24.0%
	T	2.7%	21.8%	39.0%	36.5%
Subtask 6: Multiplication, Division, Fractions and Geometry	C	54.0%	33.1%	7.3%	5.6%
	T	44.2%	36.0%	13.6%	6.2%
Subtask 7: Advanced Problems 2	C	84.9%	12.5%	2.2%	0.4%
	T	72.1%	20.1%	5.8%	1.9%

Most girls in both the treatment and control groups are classified as proficient learners in subtask 1: number identification and subtask 2: quantity discrimination, the most elementary tasks in the numeracy assessment.

This suggests that girls by the later years of primary school have reached a reasonable level of mastery of these basic skills.

For subtask 3: pattern recognition, girls are required to recognize a pattern and identify a missing number in a sequence.

A majority of girls are classified as established and proficient learners in this subtask. However, a large proportion of girls are classified as emerging learners in both groups: 30.5% in the control group and 20.8% in the treatment group. This suggests that pattern recognition is still a difficult task for a large proportion of girls and the project should seek to address this through homework clubs and other activities.

Most girls are categorized as established or proficient learners in subtask 4: addition and subtraction: 86.9% of control girls and 91.5% of treatment girls.

Around half of all girls are categorized in the top two categories: established and proficient learners for the first written task which measures girl's ability to answer basic multiplication and division problems. However, as half of all girls were categorized in lower categories, the project should consider how it can better support girls to complete with written problems.

With more advanced written problems (subtask 5), the proportion of girls who are categorized as established and proficient learners sharply drops. For the multiplication, division, and fractions written task, most girls are categorized as non-learners or emergent learners: 87.1% of girls in the control group and 80.2% of girls in the treatment group.

This makes logical sense as girls only cover these materials in the early years of secondary school. However, the project should consider how it can support girls to answer these more advanced written problems through existing activities. For the most advanced written task, which includes simultaneous equations and equations with unknowns, almost all girls are categorized as non-learners.

To better understand how girls, perform against the expected curriculum competencies of their grade levels, the table following reports score band achievements against grade level competencies.

Table 11. Performance Against Curriculum Expectations

Grade level	Expected competency according to National Curriculum	Proportion of control girls who meet these requirements	Proportion of treatment girls who meet these requirements
Grade 5	Advanced Written Problems (Established)	66.7%[68]	51.2%
Grade 6	Advanced Written Problems Task (Proficient)	14.5%	30.3%
Grade 7	Multiplication, Division, Fractions, Geometry (Established)	11.2%	15.5%
Grade 8	Multiplication, Division, Fractions, Geometry (Proficient)	6.6%	8.0%
Grade 9	Multiplication, Division, Fractions, Geometry (Proficient)	5.9%	7.2%
	Advanced Problems 2 (Emergent)	22.9%	41.2%
	Both requirements above	1.1%	5.3%
Grade 10	Advanced Problems 2 (Established)	0.0%	7.1%

All girls in Grade 5 in the sample, are girls who repeated the grade. By Midline, most of these girls have met the minimum curriculum expectation for numeracy in grade 5.

48.08% of girls who repeated grade 5, however have not met the expected curriculum competency for grade 5, despite having repeated the grade.

This suggests the project needs to support grade 5 teachers with delivering the grade 5 mathematics curriculum, particularly with regards to written multiplication and division problems.

Across grade 6, 7, 8, 9, and 10, only a minority of girls meet expected curriculum competencies for mathematics. On the whole this suggests the curriculum does not meet girls at their actual numeracy levels and the project may want to consider advocating for wider curriculum reform with the Ministry of Education.

In the treatment group only 30.3% of girls meet the numeracy competency in grade 6, 15.5% in grade 7, 7.2% in grade 8, 5.3% in grade 9 and 7.1% in grade 10.

Of girls who do not meet the competency for the written multiplication, division, fractions and geometry class in Grade 8, the majority (51.2%) in the treatment group do not meet the competency for the addition and subtraction task, a task that is the expected level for a girl in Grade 4.

Similarly, of girls who do not meet the curriculum competencies in grade 10, only 51.9% meet the expected curriculum competency for grade 6 (i.e. being proficient level in the first written problem task).

[68] The sample size in grade 5 is too low to draw a meaningful conclusion regarding this grade level.

These findings suggest that girls in upper grade levels often lack the foundational skills necessary to progress to higher levels of mathematics proficiency, raising questions as to the ability of teachers to deliver the curriculum and the sequencing of specific numeracy skills.

This is supported by qualitative evidence. Interviews with math teachers suggest that some skills in numeracy are hard to acquire due to the lack of a solid mathematical foundation in lower grades.

In multiple interviews with maths teachers regarding their teaching curriculum, several teachers spoke about the lack of a sufficient educational base in maths in order to achieve certain skills. For example, one maths teacher from grade 5 and 6 said that some skills such as multiplication and geometry may be hard for students because, "*These are new. They do not have experience from lower grades. I think this makes it harder to understand easily*."[69]

Maths teachers in higher grades also brought up this issue. When asked why some students found particular subject matters challenging, a teacher of grade 7 and 8 said, "*The reasons are a total lack of bases from lower grades*."[70]

When responding to the same question in another interview, a grade 9 teacher said, "*It's because the students lack the educational bases in the lower 7th and 8th classes, i.e. the students will not properly learn, and on top of that taking the 9th will be a huge backlog for the students*."[71]

One teacher blamed this problem on educational policies, "*Another reason, if we look at the educational policy, it allows students to be promoted to the next grade without any adequate knowledge, and finally they fall out when they go to grade eight because that is challenging for them to manage.*"[72]

Across grade levels, a higher proportion of girls in the treatment group meet expected curriculum competencies than in the control group, supporting evidence that suggests the project had an impact on numeracy outcomes between baseline and midline.

However, despite these achievements the majority of girls in treatment schools in Grade 6-10 do not meet the expected curriculum competencies. This suggests that the curriculum is too demanding for girls' existing numeracy levels.

Performance against expected curriculum competencies are further discussed in relation to teaching quality by grade level in Chapter 5.2 (Quality of Teaching).

According to qualitative discussions, girls like learning maths because of its practical use in daily life.

When girls were asked if they liked learning mathematics or not, many responded by saying 'yes' because of its many practical applications. One girl said,

[69] KII with Mathematics Teachers of Grade Five and Six, Arsi
[70] KII with Mathematics Teachers of Grade Seven and Eight, Arsi
[71] KII with Mathematics Grade 9 Teachers, Woreta Secondary School, South Gondar
[72] KII with Mathematics Teachers, South Wollo

"I like mathematics because it helps me, for example, if I am in the market with money to buy things. I can calculate the cost and pay properly."[73]

Other participants in these discussions, re-iterated this, "I like it because it is useful for everything. For example, if someone asks you to add something up, if you do not know maths you can't answer it."[74]

Some girls also pointed out its link with other subjects in school. For instance, "I like it …like how it is [used] in the other subjects, because mathematics is the basic subject which is with us up to secondary school."[75]

Another student from a different discussion also brought up this connection with maths and other subjects, "I like mathematics because it is included in every other subject like chemistry and physics. I have to be able to do calculations to be good at my studies, so I like maths very much."[76]

Qualitative evidence suggests that girls like learning maths because they think it is an important skill needed for the future.

As pointed out by one participant, learning maths was important because "…it is a must to do it very well to succeed."[77]

Another girl said, "I like it because it helps me even in my future life. I believe it is the most important subject and I like it very much."[78]

Some students also spoke about maths and its importance in fostering knowledge. For instance, one girl said, "I like mathematics because it helps me develop my mind…"[79]

Similarly, a student also said, "I like mathematics because it helps me develop my knowledge and helps me to know operations."[80]

One student spoke about the implications of not knowing maths in the future and said, "Even if you decide to get into business, you can't if you do not know maths."[81]

In qualitative sessions, girls report that they are happy with the way new mathematical concepts are taught.

[73] FGD with Girls on Learning, Web Amba, South Gondar
[74] FGD with Girls on Learning, Tewodross, South Gondar
[75] FGD with Girls on Learning in Upper Primary School, Arsi
[76] FGD with Girls on Learning, Tewodross, South Gondar
[77] FGD with Girls on Learning in Lower Secondary School, Arsi
[78] FGD with Girls on Learning, Tewodross, South Gondar
[79] FGD with Girls on Learning, Web Amba, South Gondar
[80] Ibid.
[81] FGD with Girls on Learning, Tewodross, South Gondar

When asked how girls felt when their teachers explained new mathematical concepts, one girl said, "Yes we are happy because they give us new knowledge."[82]

Another student in the same discussion explained how teachers taught these new concepts, "We are happy. They bring new things from other books, we do questions, they teach us using radio, and they encourage us to ask questions."[83]

Other girls from these various discussions also spoke about ways in which their teachers successfully explained a new topic. For instance, one girl said, "They give us tutorial classes so that we can be equal with other students. They teach us in an easy way. For example, if I do not understand something, the teacher will repeat and explain that thing to me."[84]

One student discussed how important it was that his teacher explained new theories in detail, "… when our mathematics teacher teaches, he explains every step of the exercise and we understand it easily. On a new concept, he teaches us in detail to show us every step so we wouldn't forget."[85]

In one discussion, a girl raised a point about how students' learning capabilities are all different even if teachers explain well, "Usually teachers provide the lesson in a good way, but all students may not understand it in similar ways as our mental abilities are different. Students should work hard to understand it."[86]

This suggests that students could benefit from increased differentiation in their lessons and tutorials, an area the project is currently working to support.

5.1.2 Local Language Literacy (Amharic & Afaan Oromo)

Literacy was also measured in both Afaan Oromo or Amharic, depending on the project zone. These local languages are the languages of instruction (LOI) for girls in primary school, as per the Ethiopian Education and Training Policy (EETP; 1994). At secondary and university levels, the LOI is English.

Girls in the Amhara region (South Gondar and South Wollo Zones) sat Amharic local language assessments at both Baseline and Midline and girls in the Oromia zone (Arsi) sat local language assessments in Afaan Oromo during both evaluation periods.

Educating children in their mother tongue in the early grade levels is widely supported in the literature and has been shown to result in improved educational outcomes in the long term, supports meaning-symbol and sound-meaning

[82] FGD with Girls on Learning, Web Amba, South Gondar
[83] Ibid.
[84] FGD with Girls on Learning, Tewodross, South Gondar
[85] FGD with Girls on learning P.S. Rural, South Wollo
[86] FGD with Girls on Learning in Lower Secondary School, Arsi

correspondence, facilitates learning new concepts and strengthens self-esteem, identity, and motivation[87].

Due to limitations in data quality with local language literacy data collected at Baseline and after consultation with the FM, the study decided to not report or use baseline local language literacy data. Instead, at Midline, this study reports current levels of local language literacy against expected curriculum competencies and discusses the drivers and barriers to local language literacy levels based on an analysis of sub-group membership and other variables.

To create aggregate local language literacy scores, we combined four subtasks: letter sound reading, invented word reading, short passage reading (oral reading fluency) and basic reading comprehension. Each of these subtasks was measured out of 100 and were averaged to create an aggregate score expressed as a percentage.

Oral reading fluency is measured in words per minute (wpm). However, in line with the FM approach an arbitrary cap of 100wpm was set by the FM for purposes of score aggregation. This would mean that ORF scores, like other subtask would effectively be represented by a percentage. This approach was decided by the FM and is based on the expectation that girls should read at a fluency rate of between 90 and 120 words per minute by the time they complete primary school, in line with Abadzi (2012).

Oral reading fluency results, as it is widely understood to be the standard measure of literacy acquisition are also presented in this chapter of the report following the standard ORF approach and measured in words per minute. The percentage score was only used for the purposes of creating an overall local language literacy score.

The following table reports mean local language literacy aggregate scores by grade level at Midline.

Table 12. Mean Local Language Literacy Aggregate Scores at Midline

Grade	Control Mean (%)	Treatment Mean (%)	Std. Deviation Treatment group
Grade 5	44.66%	69.11%	20.86
Grade 6	73.35%	75.40%	19.88
Grade 7	77.88%	79.67%	16.42
Grade 8	73.53%	80.28%	17.38
Grade 9	83.24%	86.64%	20.17
Grade 10	82.51%	89.78%	13.79
Overall	77.12%	80.38%	19.17

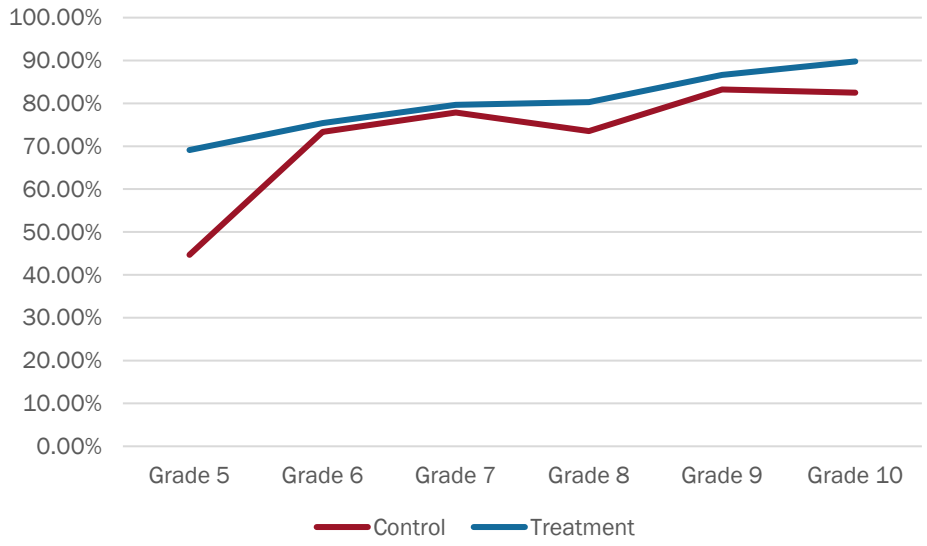
The figure following displays local language literacy mean scores by grade level at Midline by both evaluation groups.

[87] Benson 2004; UNESCO 2003

Generally, proficiency in local language literacy increases as grade level increases.

This signals that more schooling generally results in better local language literacy levels. However, there is a dip in scores in Grade 8 for girls in the control group. Girls in grade 8 in the control group score worse on average than girls in Grade 7. This may be because girls in Grade 8 have a higher proportion of girls who face certain barriers as they transition to secondary school and enter adolescents. The project has put in place several supports for girls in the treatment group and this lack of a dip may be due to the success of these activities.

Figure 17. Local Language Literacy Aggregate Mean Score by Grade Level at Midline and Evaluation Group



Qualitative evidence also suggests that literacy levels changed with transition to a higher grade in school.

Girls reported that their literacy levels in their local language improved as they transitioned into the next grade at their school. During a discussion with girls from a school in South Gondar, one student said:

"I have improved because when I was in elementary school, I was a kid and I didn't give much focus to my education. But now, after I joined secondary school, I focus on my studies and I read more."[88]

Another student from a different zone cited similar reasons, *"Last year I did not pay much attention but now as the subject matters get harder, I've increased my reading habits."*[89]

The same reasoning was pointed out for changes in English language skills, as mentioned by one student who said, *"At primary school my English reading skills*

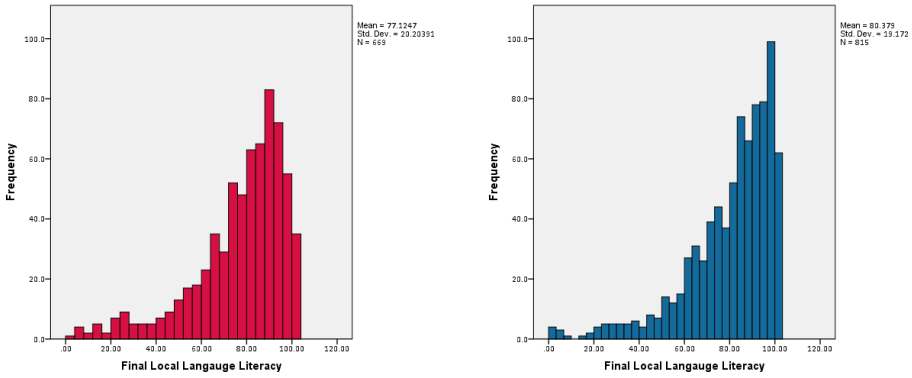
[88] FGD with Girls on Learning, South Gondar
[89] FGD with Girls On Learning in Lower Secondary School, South Wollo

were poor. Since I got to secondary school, it has both changed and improved."[90]

Another main reason for improved skills in English with a transition to a higher grade was a change in the language of instruction, "*Last year most of our subjects were in Amharic so our English skills were poor. But this year we learn 10 subjects in English. So, we spend more time reading and writing in English and that has helped us to develop our skills."*[91]

The distributions of aggregate local language literacy scores at Midline by evaluation group are shown in Figure 20. Both distributions exhibit rightward skews at Midline, with modes around 85% and means between 77% and 80%.

Figure 18. Distribution of Local Language Literacy sores at Midline Control (left) and Treatment (right)



Results by score band are presented in the table following. Across all subtasks, the majority of treatment girls are categorized as proficient learners. For the control group the majority of girls are proficient learners in all subtasks except basic reading comprehension. Overall, these finding indicate that girls have high levels of local language literacy.

In both groups the highest proportion of non-learners and emergent learners were for the basic reading comprehension subtask. A small proportion of girls (12.9% in the treatment group and 17.8% in the control group) have challenges decoding meaning from short passages written in local languages. The project should consider how it can strengthen this foundational skill for given that it is the weakest skill of all sub-domains of local language literacy measured at Midline.

Table 13. Local Language Literacy Score Band Performance by Subtask and Evaluation Group at Midline

[90] FGD with Girls on Learning in Lower Secondary School, Arsi
[91] FGD with Girls on Learning, Tewodross, South Gondar

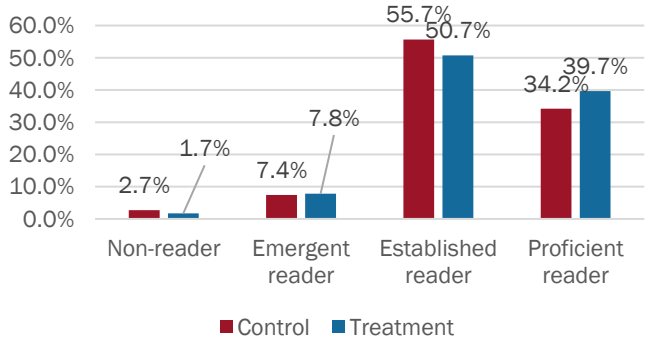
Subtask		Categories			
		Non-learner	Emergent learner	Established learner	Proficient learners
Score band		0%	1-40%	41-80%	81-100%
Subtask 1: Letter Sound Identification	C	0.4%	5.6%	20.9%	73.0%
	T	1.0%	3.4%	21.7%	73.9%
Subtask 2: Invented Word Reading	C	5.0%	6.7%	32.6%	55.6%
	T	3.9%	5.8%	27.9%	62.4%
Subtask 4: Basic Reading Comprehension	C	6.2%	11.6%	40.1%	42.1%
	T	4.4%	8.5%	33.6%	53.5%

The figure following displays the score bands for oral reading fluency, the standard measure of literacy acquisition.

Almost all girls are proficient and established readers in both the treatment and control groups. Significant literature supports the effectiveness and relevance of teaching mother language literacy in the primary years. The fact that girls are immersed in either Afaan Oromo or Amharic and that this is the language of instruction in primary schools may help explain these achievements. Moreover, these levels of proficiency in reading are likely to support girls' access to the wider curriculum in primary schools.

1.7% of girls in the treatment group and 2.7% of girls in the control group are non-readers in local language literacy, reading an average of 0 to 5 words per minute. 71.4% of non-readers in local language literacy are from Arsi in the treatment group 28.6% are girls from South Gonder. This suggests that teachers in Arsi may need additional support with local language instruction. Non-readers in local language literacy were found in all target grade levels (Grade 5-10), suggesting the project needs to support early literacy acquisition across a wide range of age groups.

Figure 19. Local Language Oral Reading Fluency Score Bands



A logistic regression finds that treatment is a statistically significant predictor of a girls' proficiency level in local language oral reading fluency.

This suggests that the project supports girls to improve their oral reading fluency and may have had an impact on learning. However, due to the absence of literacy data from baseline a conclusive determination on whether the project had an impact on local language learning cannot be made.

To understand how girls perform against expected curriculum competencies, each subtask was mapped against the national curriculum. As local language literacy is only part of the curriculum in primary schools, mapping of these tasks stopped in Grade 8, although girls in Grade 9 and 10 also sat local language assessments. Results are shown in Table 14.

Table 14. Performance against expected curriculum competencies Local Language Literacy

Grade level	Expected competency according to National Curriculum	Proportion of control girls who meet these requirements	Proportion of treatment girls who meet these requirements
Grade 5	Oral reading fluency (established reader)	33.3%	77.9%
Grade 6	Oral reading fluency (established reader)	86.0%	84.8%
	Basic reading comprehension (Established learner)	81.1%	81.3%
Grade 7	Basic reading comprehension (proficient learner)	38.1%	55.5%
Grade 8	Basic reading comprehension (proficient learner)	36.0%	51.7%

In the treatment group, a majority of girls meet expected curriculum competencies for local language literacy across all grade levels. In the control group, a majority of girls meet expected competencies in grade 6 but not in other grade levels. This suggests teachers in treatment schools may be better at delivering the local language literacy curriculum than in control schools and that supports put in place in treatment schools to promote local language literacy learning may have been effective at delivering improved learning.

Although a high proportion of girls are established and proficient readers, based on oral reading fluency, they may not be able to understand all of what they read. 44.5% of girls in Grade 7 and 48.3% of girls in Grade 8 did not meet the expected curriculum competency for basic reading comprehension. This indicates that these girls need additional support learning to decode meaning from written texts they read aloud.

5.1.3 English Literacy

English literacy could not be compared between Baseline and Midline as it was only measured at Baseline for girls in grade 7 and 8. Additionally, due to challenges with the quality of the data (See Limitations), the project, the FM and the EE agreed to focus only on English Literacy levels at Midline.

To aggregate English literacy scores, we combined three subtasks which all girls took. These subtasks were chosen as they capture the competency levels of girls

in target grades at Midline. The subtasks included in the aggregate score are: Short passage reading (Oral Reading Fluency), Basic reading comprehension, and Advanced Reading Comprehension 1 (Written).

Oral reading fluency is measured in words per minute. However, in line with the FM approach an arbitrary cap of 100wpm was set by the FM for purposes of score aggregation. This would mean that ORF scores, like other subtasks would effectively be represented by a percentage. This approach was decided by the FM and is based on the expectation that girls should read at a fluency rate of between 90 and 120 words per minute by the time they complete primary school, in line with Abadzi (2012).

Oral reading fluency results, as it is widely understood to be the standard measure of literacy acquisition are also presented in this chapter of the report following the standard ORF approach and measured in words per minute. The percentage score was only used for the purposes of creating an overall English literacy score.

Table 15. Mean English Literacy Aggregate Scores at Midline

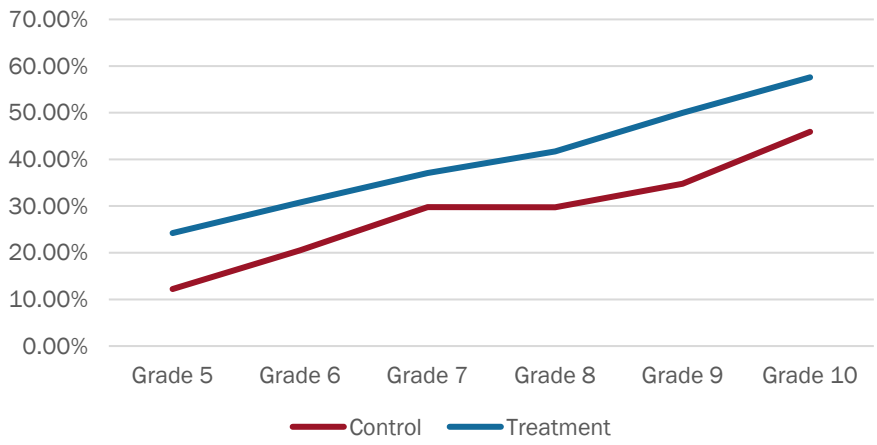
Grade	Control Mean (%)	Treatment Mean (%)	Std. Deviation Treatment group
Grade 5	12.22%	24.21%	23.91
Grade 6	20.52%	30.76%	24.21
Grade 7	29.77%	37.08%	21.84
Grade 8	29.75%	41.72%	22.41
Grade 9	34.77%	49.98%	24.72
Grade 10	45.92%	57.59%	23.79
Overall	29.94%	40.62%%	25.35

Figure 20 displays mean English literacy aggregate scores by grade at Midline for both evaluation groups.

For both groups, as grade level increases, English literacy levels increase. This suggests that girls better in English as they spend more time in school. On average across all grade levels, the treatment group scores higher than the control group at Midline in their levels of oral reading fluency.

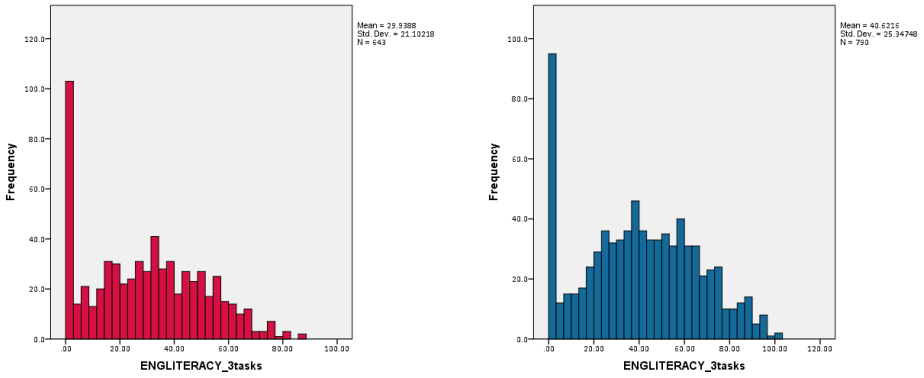
Due to the individual level approach to the difference-in-difference model used to assess project impact at Midline, this will not influence results or make it easier for the project to achieve impact in English literacy by Endline. Following the DiD approach, impact will be assessed by the individual gains of girls between periods, and therefore their starting levels at Midline will not play a role in influencing the extent to which the project can achieve impact targets for this outcome.

Figure 20. English Literacy Aggregate Mean Score by Grade Level at Midline and Evaluation Group



Distributions of English literacy aggregate scores by evaluation group are shown in Figure 15. Both groups exhibit a leftward skew, although most children score higher than 0%. The distribution of English literacy aggregate scores is similar for both groups, although a larger proportion of girls in the treatment group score higher than girls in the control group, on average at Midline.

Figure 21. Distribution of English Scores at Midline Control (left) and Treatment (right)



English literacy score band performance is displayed in the table following.

Generally, most girls perform poorly in English language literacy. These results stand in stark contrast to local language literacy results. This is likely explained by the fact that most girls are in primary school, where the LOI is still local language. However, these results also indicate that primary schools need to do a better job of equipping girls with a minimum level of proficiency to support their transition to English medium secondary schools.

Across subtasks girls in the treatment group perform better in English language literacy than in the control group.

This substantiates similar findings with local language literacy, which suggest that namely that treatment schools and project activities may have played a role in supporting girls' literacy acquisition.

A minority of girls are established or proficient learners in basic reading comprehension: 21.0% of girls in the control group and 37.9% of girls in the treatment group.

These results suggest that, as many girls struggle with decoding meaning from written texts in their mother language, they are more likely to struggle to do so in a second language. This is widely validated in the literature where children with decoding challenges in their main language struggle to decode in their second language.

Only 7.4% of girls in the control group and 23.4% of girls in the treatment group are established or proficient learners in the first Advanced Comprehension task. Similarly, only 3.1% of girls in the control group and 13.3% of girls in the treatment group are established or proficient learners in the second Advanced Reading Comprehension task.

Table 16. English Literacy Score Band Performance by Subtask and Evaluation Group at Midline

Subtask		Categories			
		Non-learner	Emergent learner	Established learner	Proficient learners
Score band		0%	1-40%	41-80%	81-100%
Subtask 2: Basic reading comprehension	C	39.6%	39.3%	19.1%	1.9%
	T	28.2%	34.0%	30.6%	7.3%
Subtask 3: Advanced Reading Comprehension 1	C	57.6%	35.0%	6.4%	1.0%
	T	43.9%	32.6%	19.3%	4.1%
Subtask 4: Advanced Reading Comprehension 2	C	77.7%	19.1%	2.4%	0.7%
	T	61.3%	25.4%	12.1%	1.2%

Figure 22 displays the score band results for English oral reading fluency, the standard measure of literacy acquisition.

The majority of girls in both the treatment and control group are proficient or established readers based on their reading fluency results: 70.5% of girls in the treatment group and 61.6% of girls in the control group.

However, as discussed earlier, only a minority of girls are established or proficient learners in the subsequent comprehension tasks. This suggests that although girls can read at a high level of fluency, they do not understand what they are reading.

A logistic regression finds that treatment is a statistically significant predictor of a girls' proficiency level in English oral reading fluency.

This suggests that the project supports girls to improve their oral reading fluency and may have had an impact on English literacy levels. However, due to the

absence of literacy data from baseline a conclusive determination on whether the project had an impact on local language learning cannot be made.

17.3% of girls in the control group and 13.4% in the treatment group are non-readers in English literacy, reading at a fluency rate of 0 to 5 words per minute.

A chi-square test finds that being a non-reader is associated at statistically significant levels with being in the control group ($p<0.05$). This suggests that the project may have started to play a role in improving English literacy levels. However, due to the lack of evidence on literacy levels from baseline this is not conclusive.

There is a visibly wide spread of levels in oral reading fluency in English. This likely means that in homework clubs, girls are at very different levels of English language proficiency.

The project should consider whether it is providing sufficient supports to teachers to enable them to differentiate instruction to different skills groups.

Figure 22. English Oral Reading Fluency Score Bands

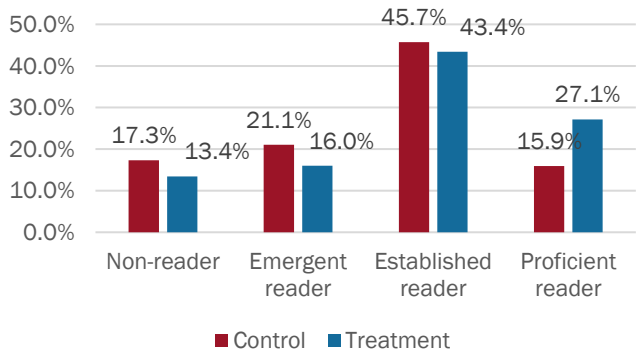


Table 17 reports score band achievements against expected curriculum competencies.

Table 17. Performance against expected curriculum competencies Local Language Literacy

Grade level	Expected competency according to National Curriculum	Proportion of control girls who meet these requirements	Proportion of treatment girls who meet these requirements
Grade 7	Oral reading fluency (Established)	60.8%	74.2%
	Basic reading Comprehension (Established)	21.3%	38.7%
Grade 8	Oral reading fluency (Proficient)	11.4%	25.7%
	Basic reading Comprehension (Proficient)	0.7%	4.0%
Grade 9	Advanced Reading Comprehension 1 (Established)	8.5%	31.4%
Grade 10	Advanced Reading Comprehension 1 (Proficient)	0.0%	11.1%

By grade 7, the majority of girls in the treatment and control group are established or proficient readers: 60.8% in the control group and 74.2% in the treatment group. However, only a minority of girls in grade 7 understand what they read: 21.3% in control and 38.7% in treatment.

In Grade 8, a minority of girls meet the competency for oral reading fluency: only 11.4% are proficient readers in the control group and only 25.7% are proficient readers in the treatment group. An even smaller percentage meet the competency for basic reading comprehension in grade 8: 0.7% in control and 4.0% in treatment.

Performance for Grade 7 and 8 suggest that although the majority of girls can read at established or proficient levels, between Grade 7 and 8 there is actually little improvement in reading rates and very little improvements in decoding meaning from written text. This suggests that girls in these grade levels need additional and targeted support to improve their English proficiency levels, especially prior to transition to secondary school in Grade 9.

In grade 9, 31.4% of girls in the treatment group meet the curriculum competency for Advanced reading comprehension and 8.5% meet the expectation in control schools. In Grade 10, 0% of girls in control are proficient in the same task, compared to 11.1% in treatment schools.

Collectively, a review of performance against expected curriculum competencies highlights that teachers and schools need additional support to deliver the English language literacy curriculum to girls. With the exception of oral reading fluency levels for girls in grade 7, a minority of girls meet expected curriculum competencies in all grades.

5.1.4 Sub-group Analysis of Learning Findings

To understand the influence of specific barriers and characteristics on learning for girls in the treatment group, Table 18 reports findings for characteristics and barriers for which there is a statistically significant difference in mean learning scores between those affected by the barrier or characteristic and those who are not.

Being an orphan predicts having reduced outcomes in English literacy aggregate scores, local language literacy aggregate scores, and local language oral reading fluency. A series of linear regressions indicate that being an orphan predicts scoring an average of 11.04 words per minute less on local language oral reading fluency, 5.56% in local language literacy aggregate score, and 5.31% less on English literacy aggregate score ($p<0.05$).

Being an orphan is therefore a visible barrier to learning and the project should consider how it can target this sub-population to ensure they are supported

between Midline and Endline. Being a double orphan was also found to result in reduced outcomes for local language literacy suggesting double orphans are more likely to have reduced learning outcomes than single orphans.

This may because orphans are less likely to have an engaged adult caregiver who is able to engage with their learning and provide a stimulating home learning environment. This will be further explored through subsequent qualitative work at Endline.

Being married or cohabiting with a man as if married predicts reduced local language oral reading fluency, local language aggregate score, English oral reading fluency, and English literacy aggregate score. Being married or cohabiting with a man as if married contributes to girls scoring 35.8 words per minute less in local language oral reading fluency, 21.46% less in local language aggregate score, 37.61 words per minute less in English oral reading fluency, and 25.61% less in English aggregate score.

Girls who are married are less engaged in school and are more likely to drop out according to qualitative interviews with school and community stakeholders. The project works to prevent underage marriages but, in some cases may need to think about how to support girls who are over the age of 18 who have married to continue their learning and engagement with school based on these findings.

Girls who have given birth have lower mean English literacy aggregate score, English oral reading fluency, local language literacy aggregate score and local language oral reading fluency than girls who have not given birth. These differences are at statistically significant levels, although no statistically significant directional relationship was found through linear modelling.

This may be because girls who have given birth are engaged in raising their children and so are less able to engage with school. Qualitative evidence suggests that there is also some stigma towards girls who have given birth who are unmarried and this may in turn influence their ability to engage in and learn in school.

Living in a household where the head of household has no formal education predicts reduced local language oral reading fluency, local language aggregate score, English literacy aggregate score, and English oral reading fluency. This may be because girls in these households cannot ask their head of household for help with schoolwork and have a head of household who is less likely to value education as they have not had any formal schooling. Living in a household where the HoH has no formal education predicts scoring 7.4 words per minute less on local language oral reading fluency ,4.2% less on local language literacy aggregate score, 6 words per minute less on English literacy aggregate score and 10.28 words per minute less on English oral reading fluency.

Living in a household where the head of household is unemployed predicts reduced English oral reading fluency, English literacy aggregate score, and local language oral reading fluency. This contributes to scoring 10.97 words less in

local language oral reading fluency, 5.54 words less in local language English oral reading fluency, and 10.56% less in English literacy aggregate score. Households where the head of household is unemployed are likely to face additional barriers (refer to Chapter on Educational marginalization) due to increased economic hardship.

Living in a household which faces extreme economic hardship predicts reduced local language literacy, and local language aggregate score ($p<0.05$). This contributes to girls scoring 8.0% less on aggregate score and scoring 11.26 words per minute less on local language oral reading fluency.

Having a mobility disability predicts reduced local language aggregate score and local language oral reading fluency. Experiencing this type of disability contributes to scoring 29.9% less on local language literacy aggregate score and 39.9 words per minute less on local language oral reading fluency. The project should consider how it can support girls with mobility disabilities between Midline and Endline.

Although all of these 6 girls live less than an hour to school, roads and paths are not accessible or wheelchair friendly and this may be one reason for reduced outcomes. This will be further explored at Endline.

Most girls with mobility impairments live in Arsi (83.3%). 50% of girls with mobility impairments are often lonely, and while only 16.7% have been physically punished by their teacher in the last week, 33.3% refused to answer this question. Only 16.7% of girls with mobility impairments report that they are currently being bullied.

Traveling an hour to get to school has a negative effect at statistically significant levels on local language oral reading fluency, local language aggregate score, English literacy aggregate score and English oral reading fluency. It contributes to scoring 7.74 less on local language aggregate score, scoring 14.9 words per minute less in local language oral reading fluency, 10.96% less in English literacy aggregate score, and 11.26 words per minute less in English oral reading fluency.

This may be because girls who travel over an hour to get to school spend significant time traveling to and from school each day and may not have time to participate in extra-curricular activities or to complete to complete schoolwork.

Girls who do not feel safe in school score lower than their peers in all local language and literacy outcomes at statistically significant levels. However, linear regressions are non-significant.

Having been physically punished by your teacher is a predicts a girl scoring 12.94 words per minute less per minute in local language oral reading fluency, according to a linear regression model ($p<0.05$). This finding highlights the negative effect corporal punishment has on learning. Similarly, a linear regression

finds that having your parent use physical punishment on you results in girls scoring 7.26 words per minute less in English oral reading fluency.

Feeling lonely at school is a predictor of lower local language literacy aggregate scores and lower local language oral reading fluency according to linear modelling ($p<0.05$). It contributes to girls scoring 11.1 words per minute less in local language ORF and 6.13% less in local language literacy aggregate score.

Not having enough seats for all children in classes has a statistically significant negative effect on local language literacy aggregate score according to a linear regression. This contributes to girls scoring 4.24% less on this outcome. This suggests that when children cannot sit in a class, they have trouble learning what is being taught. This may be because of the distraction of other children not sitting as well, or the distraction of not having a comfortable place to focus on the content of the lesson.

Not using drinking facilities in school predicts lower scores on local language literacy aggregate score ($p<0.05$). This contributes to girls scoring 2.85% less on this outcome.

Teacher absenteeism has a negative effect at statistically significant levels on local language literacy aggregate score, English literacy aggregate score, and local language oral reading fluency according to linear regression models. Specifically, it contributes to girls scoring 4.97% less on English aggregate literacy, 6.17% less in local language literacy score, and 9.76 words per minute less in local language oral reading fluency. The project should consider what steps it can take to reduce teacher absenteeism to ensure this does not hamper project impact on learning between periods.

When girls lack agency over whether they stay in school, this has a negative effect on their English literacy and local language literacy learning. This suggests that girls who have the power to make decisions to stay may be more motivated to learn. This will be explored further in the Life Skills section.

Several sexual and reproductive health related barriers were found to result in reduced learning outcomes.

Finding it hard to access sanitary wear has a negative effect on local language literacy aggregate scores and English literacy aggregate scores, at statistically significant levels ($p<0.05$). This may be because girls who have difficulty accessing menstrual wear would struggle to attend and learn in school during menstruation. Similarly, not having access to someone to ask SRH questions to contributes to reduced local language literacy scores according to linear modelling.

Not knowing a modern contraception method, including abstinence, contributes to reduced numeracy outcomes, local language literacy outcomes, and English literacy outcomes. This was a statistically significant predictor of all learning outcomes resulting in reduced levels ($p<0.05$). Specifically, it predicts scoring 7.05% less on numeracy, 8.47% less on English literacy aggregate score, and

10.63% words per minute less on local language literacy score. This finding strongly suggests that having knowledge about how to access contraception supports learning. It is also likely that this is a proxy for wider access to SRH information, an important support for adolescents. Similar findings were found for not being able to access a condom if a girl wanted one.

Table 18. Influence of Barriers and Characteristics on Learning Outcomes (Treatment Group Only)

Sub-group		Numeracy aggregate score mean	English Literacy Aggregate score mean	English Oral Reading Fluency mean (wpm)	Local Language Aggregate score mean	Local Language Oral Reading Fluency mean (wpm)
Orphan (Either)	N	62.95%	41.35%*	62.71	81.13%*	83.14*
	Y	61.68%	36.04%*	55.41	75.57%*	72.09*
Double Orphan	N	63.00%	40.94%	62.23	80.96%*	82.29*
	Y	56.88%	32.33%	48.19	64.00%*	63.55*
Married or living as if married	N	68.28%	46.62%*	71.05*	81.45%*	88.86*
	Y	57.03%	21.00%*	33.43*	59.98%*	53.05*
Given Birth	N	67.13%	46.03%*	70.78*	81.66%*	88.31*
	Y	59.38%	0.00%*	0.00*	20.50%*	0.00*
HoH has no formal education	N	37.51%	43.76%*	67.09*	82.61%*	85.58*
	Y	60.64%	37.75%*	56.81*	78.41%*	78.18*
HoH Unemployed	N	37.65%	46.47%*	67.77*	81.77%	84.72*
	Y	59.38%	35.87%*	56.80*	79.26%	79.19*
Household faces extreme hardship	N	62.86%	40.66%	62.00	80.89%*	82.36*
	Y	61.44%	40.04%	57.12	72.88%*	71.10*
Mobility Impairment	N	62.82%	40.65%	61.98	80.68%*	82.13*
	Y	50.00%	27.33%	34.09	51.76%*	42.22*
Girl travels over an hour to get to school	N	43.39%	41.59%*	62.71*	81.05%*	82.99*
	Y	57.25%	30.63%*	51.45*	73.60%*	68.01*
Girl does not feel safe at school	N	43.15%	40.55%	62.48*	80.54%*	82.25*
	Y	65.93%	41.49%	52.24*	78.46%*	74.26*
Girl has been physically punished by teacher	N	39.45%	41.92%	64.54	79.27%	80.44*
	Y	61.53%	38.59%	57.28	82.09%	83.51*
Parents/caregivers physically punish girl at home	N	43.20%	40.63%	61.56*	80.39%	81.54
	Y	60.86%	40.57%	63.26*	80.30%	82.69
Girl is often lonely at school	N	58.42%	39.79%	68.33	78.05%*	72.64*
	Y	41.64%	40.85%	63.13	81.94%*	84.48*
Not enough seats for children	N	42.44%	40.45%	61.61	80.93%*	82.42
	Y	65.68%	41.79%	62.42	76.69%*	76.49
Girl does not use drinking water facilities in school	N	40.58%	41.78%	62.91	81.38%*	83.63
	Y	59.16%	38.51%	59.54	78.53%*	77.96
Girl finds it hard to access to sanitary pads/wear	N	43.38%	41.24%*	62.36	80.89%*	79.26
	Y	56.64%	34.93%*	55.68	75.72%*	81.73
Girl has no one to ask questions to about SRH	N	41.18%	40.18%	60.97	81.20%*	82.44
	Y	63.02%	41.95%	63.94	77.90%*	79.22
Does not know modern method of contraception at ML	N	69.58%*	48.78%*	76.14*	85.10%*	94.96*
	Y	62.54%*	40.31%*	59.99*	74.48%*	74.48*
Not able to get a condom if they wanted one ML	N	71.00%*	48.95%*	74.81*	85.58%*	94.62*
	Y	64.79%*	43.68%*	64.55*	77.78%*	79.88*
Teacher often absent in school	N	42.02%	41.71%*	62.78	81.75%*	83.81*
	Y	59.32%	36.76%*	57.92	75.57%*	74.06*
Girl cannot choose whether to stay in school but has to accept what is decided for her	N	41.69%	42.67%*	65.94*	83.74%*	86.69*
	Y	55.79%	36.14%*	52.47*	73.04%*	70.64*

**Statistically significant difference in mean; shaded cells represent statistically significant regression using sub-group membership as predictor of learning score*

Qualitative sessions conducted with girls and other stakeholders also highlighted several barriers to learning.

Qualitative evidence suggests that girls may not like to read in front of their class because they are afraid.

According to focus group discussions, several girls spoke about how they were nervous to read aloud in front of their class in their local language. For example, when asked if she was afraid to read in class, one girl responded by saying, "*Yes, because I am afraid of being in front of people."*[92]

Another girl in the same discussion group also shared similar feelings. She said, "*I am afraid to read in front of people because I get into a shock whenever I stand in front of people."*[93]

When asked why they may experience fear when asked to read aloud, one participant said, "*... maybe a lack of experience."*[94]

Other girls spoke about how they were initially nervous to read aloud in class but noted that with time it was easier to do so. For instance, one participant said, "*I used to feel nervous at first, but now I do not feel nervous."*[95]

A girl in the same discussion re-iterated this, "*For the first time you might feel nervous, but with continuous class activity you can build confidence."*[96]

In the Girls' Survey at Midline we asked girls to what extent they agreed or disagreed with the statement "I get nervous when I have to read in front of others". Results are summarized in the figure following for the treatment and control groups.

A higher proportion of girls in the treatment group feel nervous reading in front of others than in the control group: 55.8% of girls in treatment compared to 49.6% of girls in control. Chi-square tests suggest there is a statistically significant association between feeling anxious reading in front of others and being in treatment school.

To understand the relationship between reading anxiety and learning, we ran a linear regression using anxiety to predict English and local language oral reading fluency for the treatment group. The models were significant indicating that being anxious reading in front of others predicts reduced levels of fluency, although the relationship is probably mutually reinforcing ($p<0.05$). These findings suggest that the project should support girls to practice reading out loud in front of others to support literacy improvements.

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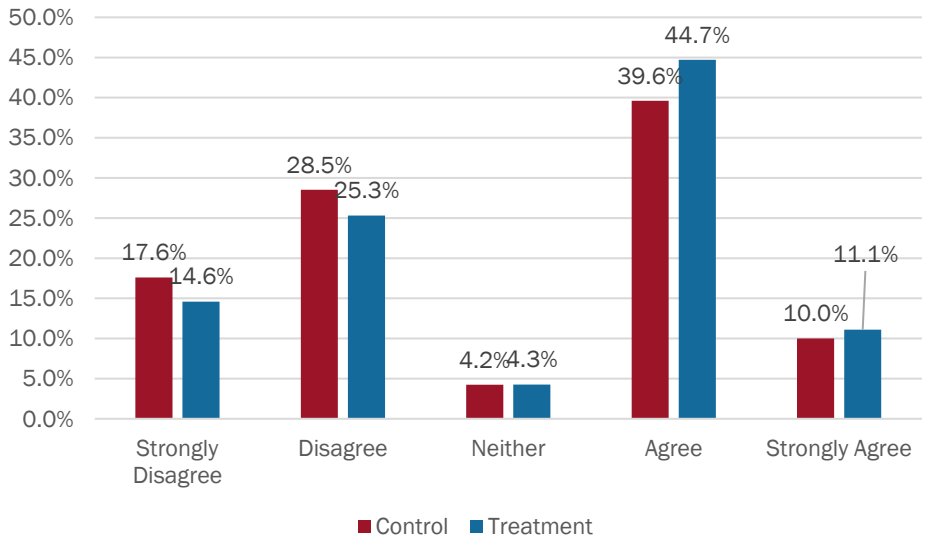
[92] FGD with Girls on Learning, Web Amba, South Gondar
[93] Ibid.
[94] FGD with Girls on Learning in Upper Primary School, Arsi
[95] FGD with Girls on Learning in Lower Secondary School, Arsi
[96] Ibid.

Figure 23. I get nervous when I have to read in front of others



In focus group discussions, girls report that they get nervous when asked to practice maths problems in front of class.

When asked if they got nervous when required to do maths problems in front of the class, the majority of participants from a focus group discussion in Arsi responded by saying that they did. One girl tried to explain her reasons, "Sometimes I feel nervous practising in front of teachers. I do not know the reason... it might be due to a lack of experience."[97]

Another girl in the same discussion cited similar causes but remained hopeful that it would change with time, "I feel panicky when teachers ask me to practice [maths] problems in front of the students. I think it could be due to a lack of experience. I will improve it in the future."[98]

Other students in different discussion groups also spoke about a lack of experience as being a factor that causes students to get nervous. For example, when asked why she felt nervous to practice maths in front of the class, a girl said, "Because it is about ability. It is a lack of experience working in front of students."[99]

Some girls said that their main reasons for not wanting to practice in front of the class was because they were afraid to make mistakes. One girl said, "I also feel nervous. Usually I'm afraid to make mistakes."[100]

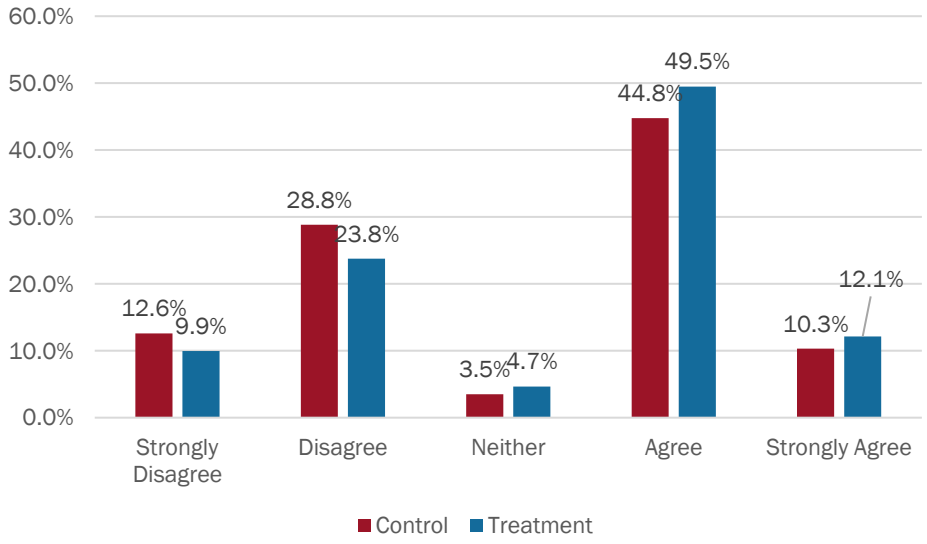
Another girl said, "I'm afraid to make mistakes because I am not perfect in mathematics."[101]

[97] FGD with Girls on Learning in Upper Primary School, Arsi
[98] Ibid.
[99] FGD with Girls on Learning in Lower Secondary School, Arsi
[100] Ibid.
[101] FGD with Girls on Learning in Upper Primary School, Arsi.

As with reading anxiety, the Girls Survey probed into math anxiety and asked respondents the extent to which they agreed or disagreed with the statement "I get nervous when I have to do maths in front of others".

Results are shown in the figure below. As with reading anxiety, a higher proportion of girls in the treatment group experienced math anxiety compared to the control group: 66.6% of girls in treatment compared to 55.1% in control. Chi-square tests for association find that there is an association at statistically significant levels of experiencing math anxiety and being a member of the treatment group. A linear model found that math anxiety has a negative effect on numeracy levels ($p<0.05$). This suggests the project should consider how it can better support girls to feel confident performing math in front of others.

Figure 24. I get nervous when I have to do maths in front of others



As evident from qualitative sessions, language teachers believe that students' literacy levels fall behind due to a lack of class time.

In an interview with an English teacher, one of the main reasons pointed out for not completing the curriculum was a lack of time, "First, time constraint. When I say time constraint; as stated above, the book was prepared for a whole day class schedule, but we teach half day as there are not enough class rooms and for this reason we could not teach for a whole day." The teacher then went on to explain how this can have an effect on students, "The students may not be able to be done with the portion you allotted for a day; thus, the task may be postponed for the next day. So, this will have an effect."[102]

Another English teacher brought up the same issue. When asked if they could finish the curriculum, they said, "... I do not think I will cover it this year. Because the portion is wide and the students are kids, so I have to slow down."[103]

[102] KII with English Literacy Teachers Grade 9 Hiwi, South Wollo
[103] KII with Grade 5 English Teacher AT, South Gondar

Local language teachers also voiced similar concerns in interviews. One said, "But for example I teach Amharic in grade 6. And it is very hard to cover the whole portion because it is very wide and some units are difficult for the students, so it takes time."[104]

Additionally, one local language teacher highlighted how it is possible to fall behind schedule when adjusting to all students' learning abilities, "There are some top students who finish portions of the textbook and want some additional notes or activities from other sources. And there are some students who want to do the activities in the textbook… So, to compensate all these, I'm sometimes behind schedule."[105]

Evidence gathered from qualitative sessions suggests that boys are better at reading than girls.

During focus group discussions with girls, participants reported that boys had better reading skills in their local language than them. As one participant said, "*In my opinion boys do better than girls in reading*."[106]

When asked why they thought that, one girl said, "*Because girls have a fear to read in front of students. This makes girls practice less than boys. Boys are very brave…"*[107]

Another participant from the same discussion explained that their capabilities were the same, if not more, but their fear held them back, "*Girls have the ability to work even better. We have been demonstrating this in class tests and exams. But due to fear, girls are doing less in reading than boys in class."*[108]

With regards to English skills, a girl from another discussion said, "*In my experience boys are more active in performing their reading skills in class*."[109]

Teachers also seemed to support this view that boys read better than girls. One local language teacher said, "*The differences are with spoken skills. Girls are afraid to talk but boys talk whatever they want.*"[110]

Another local language teacher re-iterated this view and spoke about how he encouraged girls to speak, "*Females are fearful to talk and express what they felt. But the males are relatively active. They both understand language more or less equally. Therefore, we try to make the females participate equally with the male students. We ask them questions and they participate. We also tell them that they are equal with males."*[111]

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[104] KII with Local Language Teacher, South Gondar.
[105] KII with Local Languages, South Gondar.
[106] FGD with Girls on Learning in Lower Secondary School, Arsi.
[107] Ibid.
[108] Ibid.
[109] KII with English Teachers of Grade 7 and 8, Arsi.
[110] KII with Local Language Literacy Teacher Grade 10, South Wollo.
[111] KII with Local Language Teacher, South Gondar.

English language teachers held the same opinion that boys were better at reading, "*Male students are better. There are 7 or 8 male students and 3 or 4 female students who perform well.*"[112]

According to qualitative sessions perform better than boys in maths.

Key informant interviews with maths teachers revealed that girls tend to score better than boys. When asked who performs better in maths, one teacher said, "*Now females are performing very well. There are males, but females are the majority*."[113]

In another interview, a teacher also said that "*Females are better scorers than males*." They elaborated by saying that, "*There are also male high scorers, but on average females are the best scorers*."[114]

One maths teacher tried to explain why girls scored higher than boys, "*Girls are relatively better than boys. Mostly the older boys do not follow their studies strictly, they simply want to come to school and go without doing anything.*"[115]

5.1.5 What drives learning improvements?

The study expects the teaching and learning environment in school as well as several home and community factors to influence learning.

This section discusses drivers of learning that are not addressed directly in the project's chosen intermediate outcomes. The extent to which teaching quality and improved instructional practices lead to improvements in learning is more fully discussed in the teaching quality section of the report (Section 5.2). The extent to which life skills lead to improvements in learning is discussed in the life skills section of the report (Section 5.3).

There are two other interventions at the school level that the project expects to support learning. As part of the GEC-T, the project established Homework Clubs to reinforce what girls learn in school with the support of trained teachers additionally the project set up reading corners in schools.

Homework clubs support girls to have higher levels of English oral reading fluency, local language oral reading fluency, and numeracy.

To understand the extent to which these led to learning improvements we conducted a series of linear regressions using participation in these activities to predict learning levels at Midline. These analyses find that having attended Homework Tutorials is a statistically significant predictor of local language oral reading fluency, English oral reading fluency and numeracy.

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[112] KII with Grade 5 English Teacher AT, South Gondar.
[113] KII with Mathematics Grade 2 Teacher, South Gondar.
[114] KII with Mathematics Teachers, South Wollo.
[115] KII With Mathematics Teacher Grade 7, South Wollo.

Qualitative evidence validates the role that homework tutorials play in supporting girls to learn.

In several instances, girls said that their skills in their local language have improved because of CHADET. For example, one girl said that their reading skills improved from the previous year because, "*CHADET helped us by giving us tutorials.*"[116]

Other students also credited these tutorial classes with a change in their literacy skills, as one girl said, "*We get tutorial classes because of CHADET and that helps us to read more.*"[117]

Some students also said that CHADET helped motivate them to improve their literacy skills by supporting them with material supplies. For example, when elaborating on why one girl mentioned CHADET during the discussion, she said, "*…because the project gives us exercise books, pens and menstruation pads. That really helped me to read study and learn*."[118]

Another student said that CHADET helped change her English skills, "*CHADET had supported us in improving our writing skills of English from the previous year*."[119]

Similarly, when commenting on their English skills, another student said "*It has improved. Because CHADET gave us top English books as prizes. I had poor results last year, so I started to read more. Now it has improved. And my writing skills have also improved*."[120]

A girls' home environment is also likely to influence her learning levels at Midline. To understand the role parental attitudes, play, we asked parents the extent to which they agreed or disagreed with 10 statements:

- "If necessary, parents should be able to keep their children at home during school hours to work or help in the household."
- "A family has a son and a daughter but can only afford to send one of them to school. It would make more sense for them to send their son to school."
- "Even when funds are limited it is worth investing in [GIRL]'s education"
- "A girl is just as likely to use her education as a boy"
- Even if my daughter got married I would still encourage her to continue with her education."

[116] Ibid.
[117] FGD with Girls on Learning, Tewodross, South Gondar
[118] Ibid.
[119] FGD with Girls on Learning in Lower Secondary School, Arsi
[120] FGD with Girls on Learning, Tewodross, South Gondar

- "The more education a girl has the more she will be able to find good work."
- "It is more important for a woman to be a good wife and mother than to be educated."
- "Educated women are better mothers and have healthier children."
- "In general, a boy is more likely to use his education when he leaves school than a girl."
- "The education of girls is just as important as the education of boys."

These ten items were combined to produce a parental attitude towards girls' education scale. This scale was tested to see whether it predicted learning levels at Midline.

Parental attitudes towards girls' education are a statistically significant predictor of local language oral reading fluency and local language aggregate score. When parents are supportive of girls' education, this leads to higher levels of local language literacy.

To understand the extent to which a stimulating home learning environment influences learning, we asked girls how often their parents ask them about their homework, help them with their homework, ask what they do at school, read to them, and play games or sing songs with them. This analysis found that:

Having an adult at home help a girl with homework is a statistically significant predictor of English aggregate score and numeracy at midline.

Having an adult at home ask a child about what they do in school is a statistically significant predictor of local language aggregate score, and local language oral reading fluency.

These findings suggest that parental engagement shown through helping children with their homework or asking a girl what they did in school, supports girls to learn in school.

In focus group discussions, girls report that family members and friends play an important role in helping them improve their reading skills.

One girl said that her family supported her in improving her reading skills in her local language by "*providing reading materials and arranging reading time at home*"[121].

Another student from South Gondar said, "*My father buys me different books and my mother doesn't want me to work. They want me to read.*"[122]

[121] FGD with Girls on Learning in Lower Secondary School, Arsi.
[122] FGD with Girls on Learning, Tewodross, South Gondar.

A student from the same discussion group in South Gondar said, “My brother motivates me. He asks me to read what I have learnt, and when I make a mistake, he stops me and tells me to refer to other books. Then I will refer to these books and correct my mistakes. This is how he motivates me.”[123]

Based on further discussions, several students also suggested that they were encouraged to read in their local language by their friends. One girl said, “I study with my friends and they are very helpful to me in improving my reading skills.”[124]

One student also attributed their change in reading levels to, “… discussions with friends” and to “reading different books.”[125] A student from the same session also said, “I couldn’t read well before but now I can because I discuss with friends, take books from the library and read my books.”[126]

5.2 Transition

This section reviews the evidence available to determine the extent to which the project supported girls to successfully transition through specific transition pathways: completing primary and secondary school, acquiring income-generating skills through Technical and Vocational Education and Training (TVET), or otherwise receiving income from employment or self-employment when they reach the legal working age of 15 years old for non-hazardous work.

This outcome also explores how successful girls are across different transition pathways, what they aspire to do, and how this is mediated by individual and social factors such as the family, the community, and the school. Qualitative data provides a similar picture for boys.

5.2.1 Transitions in the Ethiopian Education System

In Ethiopia, compulsory education lasts for a period of 8 years from the age of 7 to age 15. From primary to secondary education, the academic year begins in September and ends in July.

In 2019 GC (2013 EC), a new education policy was introduced in Ethiopia, changing the beginning of secondary school from Grade 8 to Grade 6. At the time of the Midline, schools were already operating under this new policy, though adaptation has been slow[127]. Primary school runs from Grade 1 to Grade

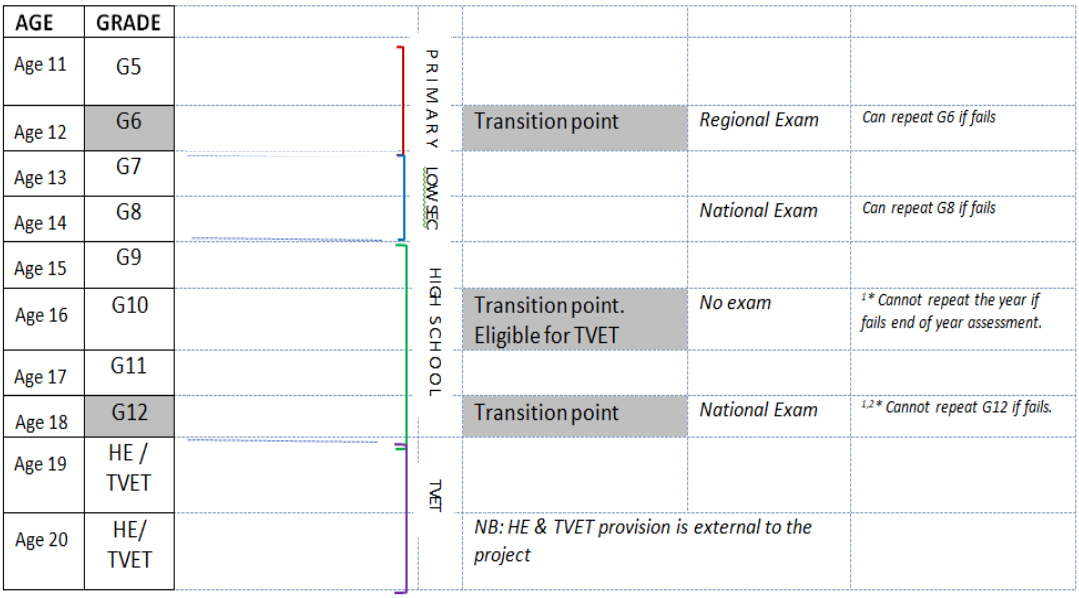
[123] Ibid.
124 FGD with Girls on Learning in Lower Secondary School, Arsi
[125] FGD with Girls on Learning, Web Amba, South Gondar
[126] Ibid.
[127] KIIs with Project Staff

6 (ages 6-12), lower secondary school from Grade 7 to 8 (ages 13 and 14), and high school from Grade 9 to Grade 12 (Ages 15-18) [128].

There is no official automatic progression in school but a successful transition onto the next grade level is determined by regional examinations at the end of primary school in Grade 6, through national examinations at the end of lower secondary school in Grade 8, and of high school in Grade 12.

Free repetition before Grade 10 is permitted, and at the end of Grade 10, if a child fails either their end of year examination (Grade 10) or national examination (Grade 12), they are not able to repeat that grade and can only retake the exams by paying a retake fee. We therefore expect transitions to be lower in Grades 10 and 12 as girls may not be able to afford to pay for a retake. Transitions in other grade-levels depend on the combined aggregate scores of internal assessments and the student's attendance rate[129].

Figure 25. Transition Points in Ethiopia (New Policy)



- ✓ Diploma or level based TVET starts at completion of senior secondary school which is now grade 12.

Ethiopia's Transition Outcomes at a Glance

The government of Ethiopia has made efforts towards expanding access to achieve universal primary education primarily by constructing new schools and ABE centres to reduce the distance between school and pupil's homes, and the transformation of existing ABE centres into regular schools. This alternative

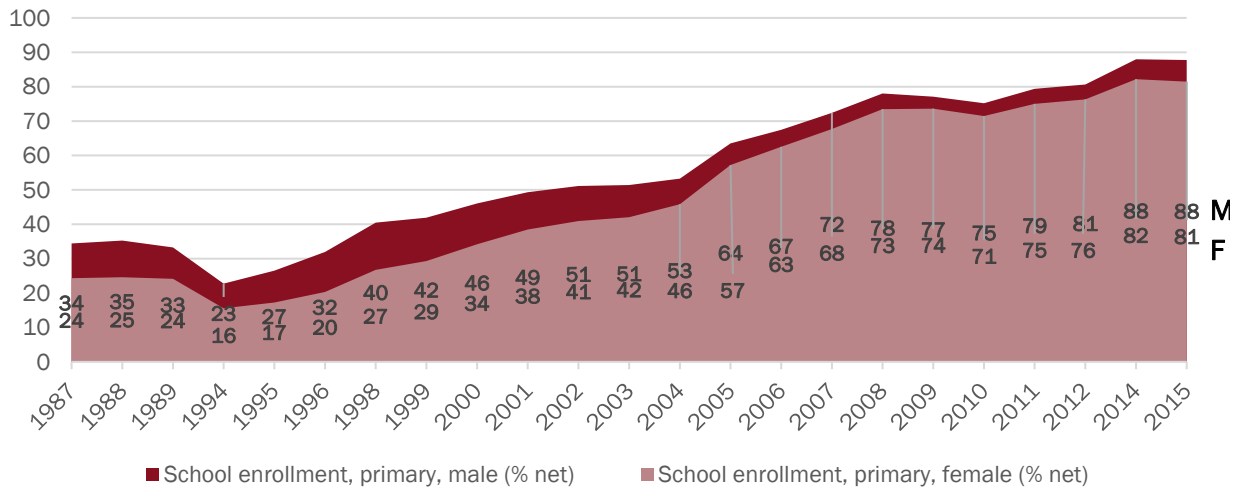
[128] CHADET (2018) Project Documents on Transition points – under New Ethiopian Education Policy (unpublished)
[129] Op cit., 128.
[130] KIIs with Government Officials

education provision "*responds to different needs and contexts and, along with the special support program to improve implementation capacity in the emerging regions, improved the enrolment of disadvantaged and previously underserved ethnic groups*"[131].

The most contemporary secondary data on Ethiopian education statistics in was compiled by UNESCO and by the Ministry of Education in 2015 (2009 EC). However, it is still possible to evaluate whether trends in outcome changes are visible and whether certain patterns have remained constant.

The Net Enrolment Rate (NER) refers to the total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group. Figure 22 shows the NER for boys and girls from 1987-2015 (2004-2009 EC) in primary school. The top number is the rate for boys and the one below is the rate for girls. In primary school, NERs have increased for girls and boys over time and Ethiopia's latest adjusted net enrolment rate (NER) for primary school for 2015 (GC) was 81% of girls and 88% of boys[132].

Figure 26. Net Enrolment Rates in Ethiopia by Sex (1987-2015 – some years missing) (%)



However, enrolment starts high in early primary school yet drops towards the end. For 2015 (2009 EC), the net enrolment rate (NER) for Grades 1-4 was

[131] Federal Ministry of Education (2015) Ethiopian Sector Development Program V (ESDP-V)

[132] UNESCO (2015) UNESCO Institute for Statistics: http://uis.unesco.org/en/country/et

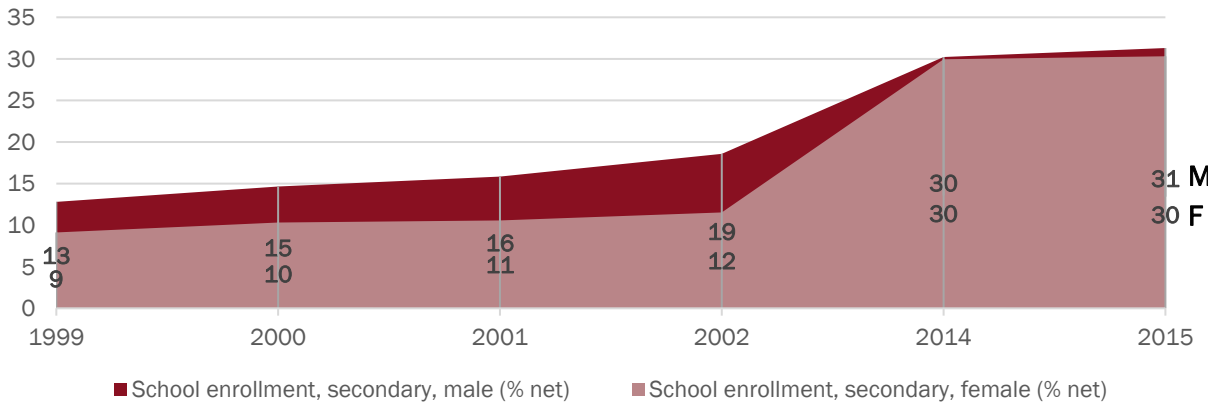
107% for girls and 118% of boys[133,134]. Exceeding 100% occurs when inconsistencies in records exist or due to over-enrolment. In the upper primary school years (Grades 5-8), the NER drops to 59% for girls and 61% for boys from[135]. According to UNESCO, 53% of girls and 55% of boys completed primary school in 2015[136].

In primary school, about 7% of boys and 6% of girls repeated the same grade level[137]. 13% of boys and 12% of girls are over-age students in primary school, which means that they are older than their classmates[138].

This means that 11% of boys and 18% of girls were out-of-school in 2015. The latest drop-out rate for primary school recorded (Grades 1-8) was for the 2019/2017 academic year (2009 EC). The drop-out rate was 12% for girls and 8% for boys, higher for girls than boys.

In secondary school, a similar pattern emerges as the net enrolment rate for secondary school much lower. In 2015, it was 31% for boys and 30% for girls, suggesting that increasingly more children drop-out from school as secondary school progresses. Only 30% of boys and 29% of girls were able to complete secondary school in 2015.

Figure 27. Net Enrolment Rates in Secondary School by Sex (1999-2002 & 2014-2015) (%)



[133] Federal Ministry of Education (2016) Education Statistics: Annual Abstract 2009 (2016/17). Available at: http://www.moe.gov.et/documents/20182/0/Statistics+2009+final+1/ca93f33d-0540-468e-9806-0e6032f8d848
[134] A NER exceeding 100% could be both due to recorded inconsistencies (such as girls enrolled vs. girls enrolled and attending for a certain period and thus considered as enrolled by schools) and by the fact that girls over-age may also enroll or re-enroll in primary school)
[135] Ibid.
[136] UNESCO (2015) UNESCO Institute for Statistics: http://uis.unesco.org/en/country/et
[137] Ibid.
[138] Ibid.

At baseline, the project gathered benchmark transition data on populations outside the project following a household-sample design. Through this exercise, it was determined that 78% of girls aged 8 to 10 were successful at transitioning, a rate that falls after girls progress onto secondary school[139]. The average rate of successful transition was 66% for the benchmark group.

Table 19. Baseline Transition Rates

Benchmark Group							
Age Group	Sample size (#)	Benchmark transition pathway					Transition Rates
		In education progression, non-TVET	In education progression, TVET	Drops out of school	Repeats grade	Not enrolled last year and enrolled this year	Successful transition rate per age
% aged 8 to 10	45	53.3	0.0	0.0	22.2	24.4	77.8
% aged 11 to 13	45	55.6	0.0	0.0	17.8	26.7	82.2
% aged 14 to 16	26	11.5	0.0	0.0	57.7	30.8	42.3
% aged 17 to 19	32	9.4	12.5	3.1	50.0	25.0	46.9
% aged 20 to 23	21	9.5	23.8	4.8	28.6	33.3	66.7
Overall	169	33.7	5.3	1.2	32.5	27.2	66.3

The Ethiopian Sector Development Program V (ESDP-V) recognizes this pattern as an issue to be addressed, stating that "*While achievements are apparent in the lower grades, it is not in the higher grades".* In these grades *"too many students leave the system early which is reflected in a grade eight completion rate of only 47%."*

According to the project, marginalised girls often do not exercise their right to quality education because they do not feel rewarded by school and have low aspirations or capacity to challenge social norms that are biasing against girls' education. In Ethiopia, these norms usually condone an unfair division of labour at home for girls, perpetuate beliefs that certain subjects are not meant for girls (such as mathematics)[140] and that early marriage and forced migration are[141]. Furthermore, 30% live under the poverty line of less than USD 1.25 a day, which means that many cannot meet the direct or indirect costs of education. Girls must also travel long distances to reach secondary schools.

Disabled children also face the challenge of attending school because they are "hidden" by their families due to stigma, and because teachers are often ill-

[139] Child Hope (2018) GEC-T Baseline Report. p. 75
[140] KII with CHADET Staff
[141] Child Hope (2017) Project Proposal (unpublished)

prepared to implement inclusive education strategies in the classroom. CHADET staff mentioned:

> *"In an interview we recently conducted with girls who are visually impaired in South Wollo, the girl reported to us that her father used to hide her when he goes out for weddings or family gatherings. He used to hold her back because people would say he has a disabled child and it is considered as a kind of curse on the family."*

The project currently works to develop guides to prepare teachers to delivery inclusive teaching. CHADET staff mentioned:

> *"…some teachers think that it is more difficult to teach, they think that children with disabilities are not capable of catching up with the rest of boys and girls. In our training, we have small dose of actual methodological tips on how to support those kids and the importance of making the class more inclusive to our level best… this is not an easy job to do"*[142].

The government recognizes that: *"the understanding of disability and special needs within the education system is an evolving area"*[143].Transitions in Child Hope Theory of Change

Child Hope offers guidance to address any worries pertaining to school in Girls' Clubs, provides support in preparing for national exams, meeting reasonable additional costs e.g. accommodation or fees, facilitating visits from secondary school tutors to primary, and gives SRH information and services to prevent STIs and unwanted pregnancy.

Girls' Clubs, in turn, are organized by the girls' themselves, who are responsible for organizing their own meetings, agendas and activities to be carried out in school. These activities usually aim to change norms that diminish girls' education or girls' role in society.

Through Homework Clubs, the project also supports girls to gain literacy and numeracy skills and apply them to other subjects making these skills applicable to succeed in school or at work, and therefore increasing their changes of transitioning into the next stage.

CHADET also conduct "community conversations" through family hubs in selected communities to discuss topics pertaining to drop-out and girls' education. While this was predominantly implemented during GEC-1, the project has found it increasingly useful to expand their work in communities in support of normative change and will likely turn back to enhance their work in communities.

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[142] KII with CHADET Staff

[143] Federal Ministry of Education (2016) Education Statistics: Annual Abstract 2009 (2016/17). Available at: http://www.moe.gov.et/documents/20182/0/Statistics+2009+final+1/ca93f33d-0540-468e-9806-0e6032f8d848

5.2.2 Transition Rates & Project Achievement

Transition can be categorized into groups, (1) school-based transitions, (such as from grade to grade, or from primary to secondary school), (2) work-based transitions, such as transitions into vocational skill training, employment or self-employment for girls aged 15+[144].

Table 20 shows the expected transition pathways (by grade level). Rows in grey denote work-based transitions. The project expects girls to complete either Grade 6 or Grade 8 to be able to opt for professional training, or if they are out of school already.

Table 20 Possible Transition Points Pathways 2017-2020

School Stage	Baseline Grade (November 2018)	Midline Point 1 (November 2019)	Endline (November 2020)
Primary School	Grade 4	Grade 5	Grade 6
	Grade 5	Grade 6	Grade 7
	Grade 6	Grade 7	Grade 8
Lower Secondary School	Grade 7	Grade 8	Grade 9 / TVET / Work
	Grade 8	Grade 9 / TVET / Work	Grade 10 / TVET / Work
High-School	Grade 9	Grade 10 / TVET / Work	Grade 11 / TVET / Work
	Grade 10	Grade 11 / TVET / Work	Grade 12 / TVET / Work
	Grade 11	Grade 12 / TVET / Work	TVET / Work / University
	Grade 12	TVET / Work / University	TVET / Work / University
OSS	Out-of-school	School (any grade), TVET (if 14+) or Work (if 15+)	School (any grade), TVET (if 14+) or Work (if 15+)

To measure whether girls could successfully transition, transition stages were recorded through the household survey and girls' survey by asking participants what they or their child were doing in 2017, 2018, and 2019, and triangulating across multiple surveys to correct inconsistencies (stemming from participants' inability to recall specific information accurately).

By asking each girl and household participating in the survey what they were doing the year before and the one before that one, transition scores can be recreated.

Girls were given a score of one (1) if they transitioned successfully or zero (0) if they did not transition, by transition pathway and in an overall transition score.

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

This final score is treated as the equivalent to the first difference in the DID model.

Table 21 provides an overview of the expected transitions of girls enrolled in the programme between these two evaluation periods and what is considered a successful or unsuccessful transition. This considers the new policy that will be used in Ethiopia.

Table 21: Transition pathways

Group	Baseline	Successful Transition at Midline	Unsuccessful Transition at Midline
Upper primary School	Enrolled in Grade 4, 5, 6	✓ In-school progression ✓ Moves into secondary school	× Drops out of school × Repeats the same grade × Moves into work, but is below legal age of 15
Lower Secondary School	Enrolled in Grades 7 and 8	✓ In-school progression ✓ Enrols into or continues technical & vocational education & training (TVET[145]), Age 14+ ✓ Work, internship, or employment, Age 16+ ✓ Moving from lower to upper secondary school is not counted as an in-school progression but rather on its own as secondary school transition.	× Drops out of school × Repeats the same grade × Moves into work, but is below legal age of 15 or is paid below minimum wage × Is inactive (neither employed nor unemployed)
High School	Enrolled in Grades 9, 10, 11 and 12.	✓ In-school progression ✓ Enrols into or continues technical & vocational education & training (TVET), Age 14+ ✓ Work, internship, or employment, Age 15+ ✓ Enrols into University or Further Education Programmes	× Drops out of school × Repeats the same grade × Moves into employment, but is paid below minimum wage × Is inactive (neither employed nor unemployed)
Out of school (age 11-19)	Was out-of-school	✓ Re-enrols in appropriate grade level in basic education ✓ Enrols into or continues technical & vocational education & training (TVET), Age 14+ ✓ Work, internship, or employment, Age 15+	× Remains out of school or paid below minimum wage × Is inactive (neither employed nor unemployed)
TVET or Employment	Was in TVET or Employment at Baseline (sampled at midline whilst in school)	✓ Re-enrols in appropriate grade level in basic education ✓ Enrols into or continues technical & vocational education & training (TVET), Age 14+ ✓ Work, internship, or employment, Age 15+	× Remains out of school or paid below minimum wage × Is inactive (neither employed nor unemployed)

Cautionary Note in the Interpretation of Findings:

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

The reader should bear in mind that the sample for transitions was taken in schools, and therefore girls who are in school are much likelier to have been selected in the study, not girls who are out of school.

Given that the original Baseline sample was taken from schools, we expect in-school transition rates to be much higher than those of the Ethiopian population in both treatment and control schools. This is because girls who were in school at Baseline (and therefore at Midline) had a higher chance of being selected for the study than girls who were working or in TVET but outside of school.

Re-enrolments are therefore likelier to be found than failed re-enrolments, and therefore it will be likely that the percentage of re-enrolments will have an upward bias.

Therefore, while the present design allows us to look at the impact of the project by looking at treatment and control comparisons, they are not meant to generalize for the Ethiopian population, nor of the zones where the intervention takes place. For those generalizations, secondary data analysis of national education outcomes was presented earlier in this section and are used to interpret transition results.

At endline, however, we will be able to track participants and evaluate who has dropped out from school and pursued different transition pathways. The endline rate, might therefore be more reflective of reality of different transition pathways; particularly, the work-based pathways.

Overall Results

Most girls from the sample were able to transition successfully between periods, in both treatment and control schools, though this is likely a result of the sampling method.

The overall transition rate for all girls the treatment group was 96% at both midline and baseline (with a positive difference of 0.4% between periods). For the control group, it was 95% at baseline and 97% at midline (with a positive difference of 1.2% between periods). However, these differences are not significant.

However, being in a treatment school does not alter the odds of being successful or not, neither in treatment nor in control schools.

While the control group seems to have progressed slightly more above treatment, these differences are not significant at statistical levels. Binary logistic regressions[146] found that the odds of being classified as a successful transition

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

is the same for both treatment and control cases B= -0.135 (0.278), Wald = 0.235, C.I. (95) = (0.506, 1.508), p=0.628.

When sample post-stratifications weights were applied to the sample to correct for equal proportions across treatment and control and grade levels, similar results were obtained[147].

This overall rate is a much higher rate than the one reported at Baseline for the benchmark group, which was set to be 66% for the treatment group.

This difference is likely the result of the sampling design (discussed above) and the fact that the measure of transitions might have been calculated in a different way.

Presently, transition results could not be recreated using baseline data because there was no variable indicating the grade level of the girls for the year 2017 (only for 2018), and therefore we could not recreate transition results using our method and baseline data. This is because we need to know if girls repeated the same grade level they were at, to classify them as transition successes or failures.

Notwithstanding, baseline data is provided to provide continuity to a discussion among project implementers to situate targets in context. Therefore, transition targets will need to be reconsidered at midline.

Transition rates were generally high for girls in both primary and secondary school, though this is likely the result of the sampling design.

At Baseline, 96% of girls in treatment schools transitioned onto the next stage, compared to 97% at Midline. In control schools, 97% did so at Baseline and 98% at Midline. Girls from treatment primary schools improved by 1.3% between periods and control improved by 1.2%.

96% of girls in treatment schools were able to transition into secondary school at Baseline and 97% of them did so at Midline. In control schools, similar results were obtained, with 97% at baseline and 98% at midline.

No girls in the sample were found to be in TVET or Employment (paid or unpaid) at midline, in either control or treatment schools. This is expected, given that the sample was taken in schools, though we could learn if girls participating in the endline study will choose these pathways.

Figure 28 shows the rates for successful transition according to the treatment group.

[147] In weighted regressions that used the grade-level stratification weight multiplied by the treatment status stratification weight, Grade 5 was excluded as there were only 3 cases sampled in control schools, compared to 86 in treatment. When Grade 5 was excluded, binary regression results were insignificant. When weight to correct for treatment cases was used on its own, similar results were obtained.

Figure 28. Rates of Successful Transition by Treatment Status and Evaluation Period

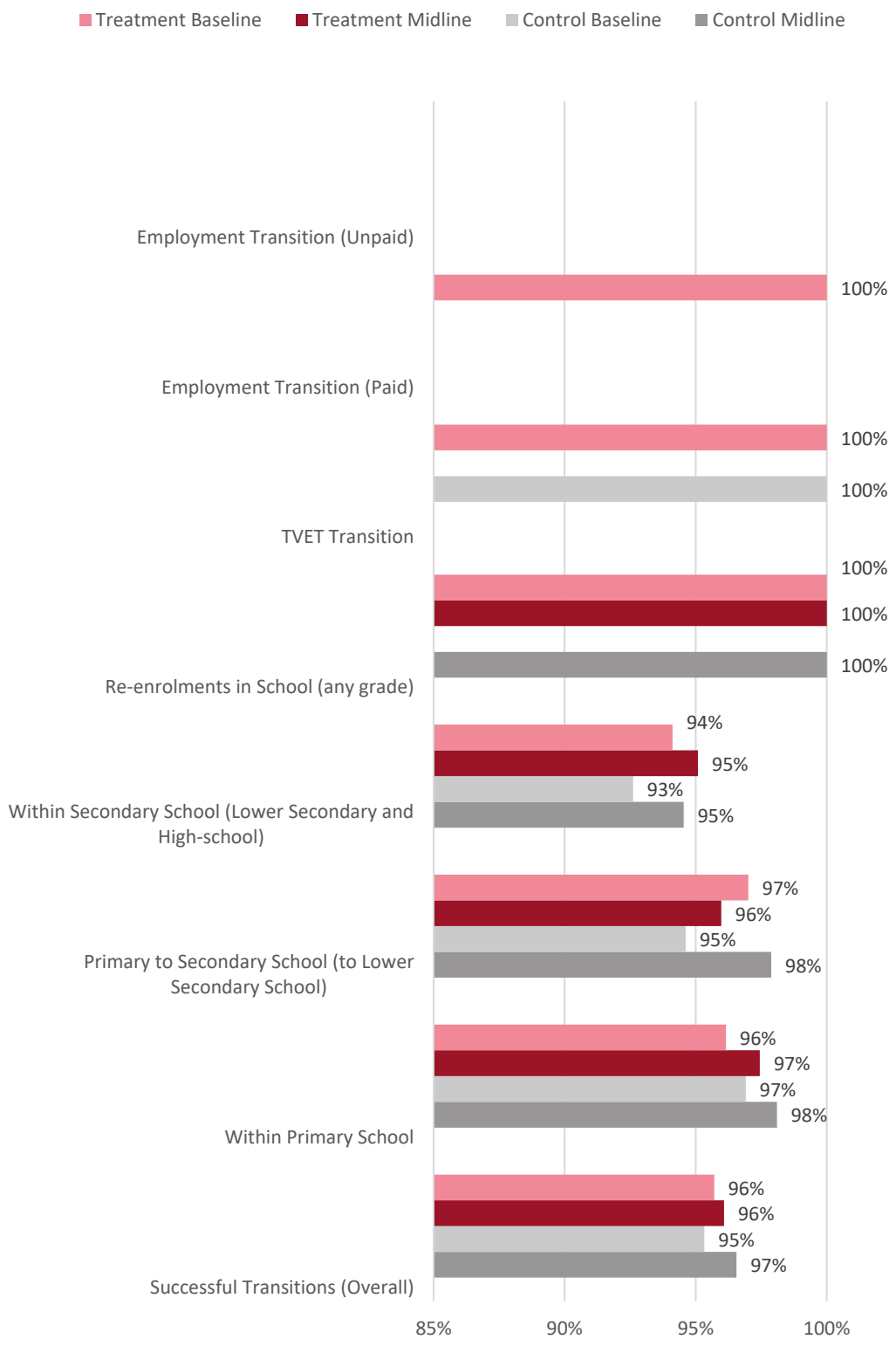


Table 22 shows these results and the sample sizes achieved by period.

Table 22. Success Rates by Transition Group (Transition Pathways)

Transition Type	Control				Treatment				Target	% Target Achieve
	Midline		Baseline		Midline		Baseline			
	n	%	n	%	n	%	n	%		
Overall Results										
All Girls	645	96.6%	633	95.3%	784	96.1%	780	95.7%	N/A	N/A
Disaggregated by Group										
Girls in Primary School	155	98.1%	345	96.9%	229	97.4%	375	96.2%	N/A	N/A
Girls transitioning into Secondary School	185	97.9%	123	94.6%	143	96.0%	162	97.0%	N/A	N/A
Girls Transitioning within Secondary School (Lower Secondary and High school)	277	94.5%	163	92.6%	387	95.1%	240	94.1%	N/A	N/A
Re-enrolments in School (any grade)	28	100%	0	0.0%	25	100%	1	100%	N/A	N/A
TVET Transition	0	0.0%	2	100%	0	0.0%	1	100%	N/A	N/A
Employment Transition (Paid)	0	0.0%	0	0.0%	0	0.0%	1	100%	N/A	N/A
Employment Transition (Unpaid)	0	0.0%	0	0.0%	0	0.0%	0	0.0%	N/A	N/A

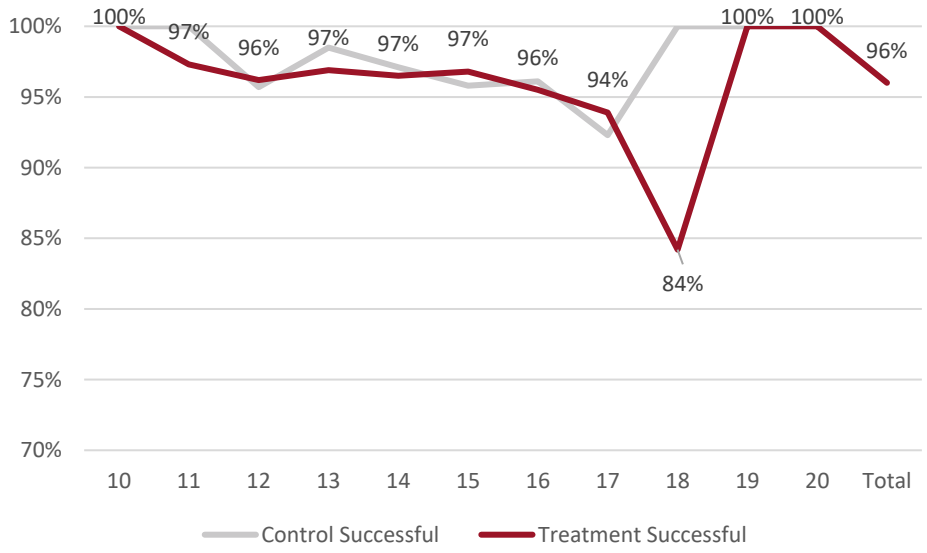
Girls in treatment and control schools are equally successful in transitioning across all types of transitions.

According to chi-square tests, there was no difference between treatment and control schools in the number of girls transitioning in any of the different pathways. This suggests that girls in treatment and control schools experience similar transitions.

Transition rates begin to drop as girls become older.

The figure below shows the transition rates of different age cohorts ranging from 10 to 20. From the figure, we can tell that transition rates drop slightly when girls become older, which suggests that girls in these age groups are likely to face a different set of barriers than those in primary school.

Figure 29. Transition Success Rates by Age



All girls who were out of school were either pregnant or nursing a child.

Only 0.5% of treatment girls and 0.6% of control girls were out-of-school at the time of the Midline. There were 4 cases in each treatment and control (8 in total) all of whom were pregnant or nursing a child. While the prevalence is low, the fact that all faced the same circumstance suggests that project interventions dedicated to strengthening the knowledge of sexual and reproductive health (SRH) and SRH rights in schools address a significant barrier that affecting transitions for girls.

The drop-out rate decreased between periods, but the repetition rate increased.

The rate of drop-out decreased in both treatment and control schools. At midline, the rate of drop-out in treatment schools was of 0.5% and in control schools was 0.6%.

Repetitions increased, however, which shows that automatic progression does not occur entirely in Ethiopia. Presently 3.6% of girls in treatment schools and 3.0% of girls in control schools, repeated a grade level.

Table 22.2 Drop-out and Repetition Rates

Rate of Failure	Evaluation Status	2019		2018	
		n	%	N	%
Drop-Out Rate	*Control*	4	0.6%	25	3.8%
	Treatment	4	0.5%	24	2.9%
Repetition Rate	*Control*	19	3.0%	9	1.4%
	Treatment	28	3.6%	13	1.6%

According to the project's internal data, drop-out rates increases overtime. By the end of Quarter 11*, the dropout rate was 7.68% and in Q12, it increased to 8.69%. In March 2018, the dropout rate was 6.24%*[148].

The fact that the project has different transition outcomes shows the limitations of the midline transitions measure, where the bias of taking a sample in schools exists, At endline, we will be better able to compare aggregate rates, as the drop-out measure will be the same for both periods[149].

The highest number of repeaters are found in Grade 5 and Grade 9 and Grade 10 has the highest number of dropouts in both treatment and control schools.

In treatment schools, the grade level with the highest repetition rate was Grade 5, followed by Grade 9, Grade 6, Grade 8, and Grade 7. In control schools, it was Grade 9, followed by Grade 6.

Table 23. Repetition Rate by Grade Level

Grade Level	Control		Treatment	
	n	%	n	%
Grade 5	2	-	5	5.9%
Grade 6	2	1.3%	6	4.0%
Grade 7	6	3.1%	4	2.7%
Grade 8	2	1.6%	5	3.0%
Grade 9	7	6.5%	8	5.6%
Grade 10	0	0.0%	0	0.0%
Total	19	3.0%	28	3.6%

The grade with the highest drop-out rate was Grade 10 in both treatment schools. The table below shows the drop-out rates by grade-level.

Table 24. Drop-out Rate by Grade Level

Grade Level	Control		Treatment	
	n	%	n	%
Grade 5	0	0.0%	0	0.0%
Grade 6	0	0.0%	0	0.0%
Grade 7	0	0.0%	0	0.0%
Grade 8	2	1.6%	2	1.2%
Grade 9	0	0.0%	0	0.0%
Grade 10	2	3.3%	2	2.1%
Total	4	0.6%	4	0.5%

5.2.3 Sub-group Analysis of Transition Findings

Girls who are pregnant are less likely to transition successfully.

Chi-square tests reveal that fewer girls who are currently pregnant are able to successfully transition in school, compared to those that are not ($p<.001$). This confirms the assumption of the project to tackle early marriage and pregnancy

[148] CHADET monitoring data.
[149] Baseline rates could not be recreated in the absence of reliable baseline data.

through their interventions. All four girls found to be pregnant by the time of midline were unsuccessful at transitioning.

The table below shows the transition rates for this and other sub-groups.

Table 25. Transition Rates by Sub-Group (treatment only)

Sub-group		Unsuccessful		Successful	
		n	%	n	%
Attendance status	Attendance decreased between BL and ML	6	4.7%	123	95.3%
	Attendance stayed the same	14	3.6%	372	96.4%
	Attendance increased between BL and ML	7	4.9%	137	95.1%
Female-headed household ML	No	19	3.2%	567	96.8%
	Yes	13	5.7%	217	94.3%
Double Orphan ML	No	30	3.8%	757	96.2%
	Yes	2	6.9%	27	93.1%
Single Orphan ML	No	27	3.7%	708	96.3%
	Yes	5	6.2%	76	93.8%
Orphan (either double or single) ML	No	25	3.5%	681	96.5%
	Yes	7	6.4%	103	93.6%
Married or living with man as if married at ML	No	16	4.2%	369	95.8%
	Yes	0	0.0%	8	100.0%
Been Pregnant ML	No	21	4.8%	418	95.2%
	Yes	0	0.0%	1	100.0%
Given Birth ML	No	20	4.5%	420	95.5%
	Yes	0	0.0%	2	100.0%
Pregnant Now ML	No	17	4.0%	411	96.0%
	Yes	4	100.0%	0	0.0%**
Girl is Mother ML	No	20	4.5%	420	95.5%
HOH Cannot speak LOI ML	No	29	4.3%	640	95.7%
	Yes	3	2.8%	105	97.2%
Girl Cannot speak LOI ML	No	31	4.3%	697	95.7%
	Yes	1	1.9%	52	98.1%
HoH has no formal education ML	No	18	4.7%	364	95.3%
	Yes	14	3.2%	420	96.8%
HoH Unemployed or not paid in cash or kind for work	No	15	4.1%	349	95.9%
	Yes	17	3.8%	435	96.2%
Likely to face extreme economic hardship (likelihood 190>0.58)	No	29	3.8%	738	96.2%
	Yes	3	6.1%	46	93.9%
Lived in village less than 10 years	No	28	3.8%	717	96.2%
	Yes	4	5.6%	67	94.4%
BL Female Headed Household	No	32	3.9%	784	96.1%
HoH has no education BL	No	32	3.9%	784	96.1%
Married at BL	No	32	3.9%	784	96.1%

Girls with a disability are also less likely to transition successfully.

15% of girls with a functioning difficulty were unsuccessful at transitioning, compared to 4% of their non-disabled peers. These differences are significant according to chi-square tests ($p<.001$). Of the disability groups that were more unsuccessful at transitioning were those with a mobility impairment (33% were unsuccessful), a self-care impairment (29% were unsuccessful), or a communication impairment (33% were unsuccessful).

The table below shows the transition rates for these and other functional impairment groups, none were statistically significant aside from those mentioned:

Table 26. Transition Rates by Functional Impairment Group

Functional Difficulty Group		Unsuccessful		Successful	
		n	%	n	%
With Functional Difficulty (overall)	No	28	3.7%	731	96.3%
	Yes	2	15.4%	11	84.6%
Visual Impairment	No functional difficulty	30	3.9%	745	96.1%
	With functional difficulty	0	0.0%	10	100.0%
Hearing Impairment	No functional difficulty	30	3.8%	757	96.2%
	With functional difficulty	0	0.0%	4	100.0%
Mobility Impairment	No functional difficulty	29	3.6%	772	96.4%
	With functional difficulty	2	33.3%	4	66.7%
Remembering	No functional difficulty	30	3.7%	772	96.3%
	With functional difficulty	0	0.0%	8	100.0%
Self-Care Impairment	No functional difficulty	29	3.6%	775	96.4%
	With functional difficulty	2	28.6%	5	71.4%
Communication Impairment	No functional difficulty	29	3.6%	774	96.4%
	With functional difficulty	2	33.3%	4	66.7%

Girls who cannot choose whether to stay in school or not are less likely to transition in school.

Of the barriers that were shown to significantly affect transitions, only girls that cannot choose “whether to stay in school but has to accept what is decided for her” had a lower likelihood to be a successful transition. This suggests that girls who feel like they have little control over their circumstances transition less successfully in school.

Transition rates by barrier groups for treatment cases are shown in the following table:

Table 27. Transition Rates by Barrier Group (Treatment Only)

Barrier		Unsuccessful		Successful	
		n	%	N	%
Girl travels over an hour to get to school	No	29	3.9%	713	96.1%
	Yes	3	4.1%	71	95.9%
Girl does not feel safe traveling to school	No	32	4.2%	725	95.8%
	Yes	0	0.0%	59	100.0%
Girl doesnt' feel safe at school	No	32	4.1%	755	95.9%
	Yes	0	0.0%	29	100.0%
In past week girl been physically punished by teacher	No	29	4.2%	666	95.8%
	Yes	1	1.4%	70	98.6%
In past week girl witnessed teacher physically punishing other students	No	26	4.0%	626	96.0%
	Yes	6	3.7%	158	96.3%
Parents/caregivers punish girl physically at home	No	27	5.5%	468	94.5%
	Yes	5	1.6%	316	98.4%
Girl currently bullied	No	29	3.9%	711	96.1%
	Yes	3	3.9%	73	96.1%
Girl has been bullied	No	32	4.0%	761	96.0%
	Yes	0	0.0%	23	100.0%
Girl is often lonely at school	No	24	3.9%	586	96.1%
	Yes	8	3.9%	198	96.1%
Girl does not have access to computer at school	No	11	5.6%	187	94.4%
	Yes	21	3.4%	597	96.6%
Not enough seats for all children	No	27	3.8%	684	96.2%
	Yes	5	4.8%	100	95.2%
Girl cannot move around school easily	No	30	3.9%	735	96.1%
	Yes	2	3.9%	49	96.1%
Does not use drinking water facilities	No	22	4.1%	509	95.9%
	Yes	10	3.5%	275	96.5%
Does not use lunch space	No	20	6.0%	312	94.0%
	Yes	12	2.5%	472	97.5%
Does not use toilets at school	No	29	4.2%	667	95.8%
	Yes	3	2.5%	117	97.5%

Barrier		Unsuccessful		Successful	
		n	%	N	%
Toilets not accessible for girl at school	No	26	3.8%	661	96.2%
	Yes	6	4.7%	123	95.3%
Does not use play areas at school	No	26	4.2%	591	95.8%
	Yes	6	3.0%	193	97.0%
Girl finds it hard to access sanitary pads	No	27	3.7%	711	96.3%
	Yes	5	6.4%	73	93.6%
No one spoken to girl about menstruation	No	32	3.9%	783	96.1%
	Yes	0	0.0%	1	100.0%
Girl has no one to ask questions to about SRH	No	20	3.3%	595	96.7%
	Yes	12	6.0%	189	94.0%
Does not know modern method of contraception at ML	No	13	4.5%	277	95.5%
	Yes	8	5.2%	147	94.8%
Not able to get a condom if they wanted one ML	No	13	6.3%	194	93.7%
	Yes	6	3.4%	168	96.6%
Girl believes teacher treats boys and girls unequally	No	30	3.8%	761	96.2%
	Yes	2	8.0%	23	92.0%
Teacher often absent	No	22	3.5%	615	96.5%
	Yes	10	5.6%	169	94.4%
Parents rate the teaching quality at the school as poor	No	31	3.9%	765	96.1%
	Yes	1	5.0%	19	95.0%
Parent rates the performance of the principal at the school as poor	No	31	3.9%	772	96.1%
	Yes	1	7.7%	12	92.3%
Girl has high chore burden	No	19	3.3%	557	96.7%
	Yes	13	5.4%	227	94.6%
Girl says doing chores makes it difficult to do school work	No	28	4.0%	667	96.0%
	Yes	4	3.3%	117	96.7%
Girl reports that she does not get support from family to stay in school and learn in school	No	30	4.0%	729	96.0%
	Yes	2	3.5%	55	96.5%
Girl cannot choose whether to stay in school but has to accept what is decided for her	No	17	3.0%	544	97.0%
	Yes	15	5.9%	240	94.1%
Girl believes girls do not have a right to education	No	32	4.0%	778	96.0%
	Yes	0	0.0%	6	100.0%
Girl believes it is not important for children to go to school	No	32	3.9%	779	96.1%
	Yes	0	0.0%	5	100.0%
BL not enough seats	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
BL move around easily	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
BL drinking facilities doesnt use	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
BL play areas doesnt use	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
BL toilet doesnt use	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
treats boys and girls differently	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
often absent	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
Does not feel safe at school BL	No	32	3.9%	784	96.1%
	Yes	0	0.0%	0	0.0%
treats boys and girls differently	No	0	0.0%	0	0.0%
	Yes	0	0.0%	0	0.0%

5.2.4 Target Setting for the Transition Outcome

Target setting for the transition outcome:

Table 28: Target setting

	Endline
Target generated by the outcome spreadsheet	98% (+2%)

5.3 Sustainability

5.3.1 Overall Findings

The table following shows the overall results and findings from the sustainability indicators and Sustainability Scorecard:

Table 29: Sustainability indicators

	Community	School	System
Indicator 1:	An increase in the % of schools and communities with operational abuse response systems in place: currently 74% of schools	44% of teachers who believe their libraries are well stocked and 55% believe the textbooks relate to what boys and girls learn in class	% of teacher and principals report they are supported by Education bureau experts in: • Attendance (51% T & 61% HT) • Safeguarding (T 39% & HT 65%) • Pedagogic improvement (T 52% & HT 61%) • Abuse Reporting (T 35% & HT 48%) • Teachers' Outcomes Reporting (T 48% & HT 70%)
Indicator 2:	78% of girls report being supported by peers and family as they transition through education	There are mechanisms in place for boys and girls to take books home in 87% of treatment schools.	
Indicator 3:		A higher proportion of lessons in treatment schools than in control schools demonstrate improvements in instructional practices across all domains. (qual)	
Midline score (0-4)	3 – Becoming Established	3- Becoming Established	1 - Latent

Overall sustainability Score (0-4, average of the three level scores)	2.33

5.3.2 Indicator Findings

5.3.2.1 Community-Level Sustainability Findings

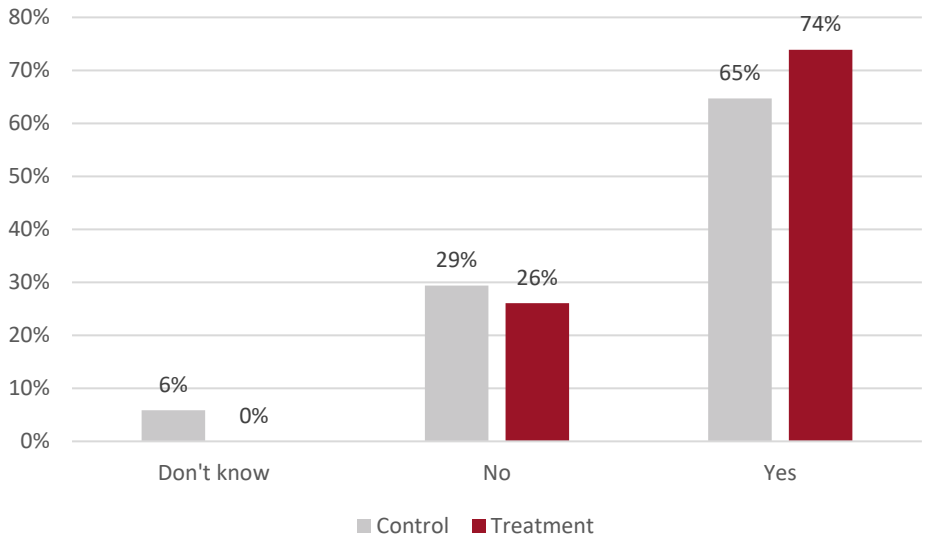
Two thirds of head teachers believe they have an operational abuse response system in place and one third believe they do not.

74 % of schools have an operational abuse response system in place

To evaluate whether operational abuse response systems were in place, we asked head teachers in treatment and control schools a series of questions about how they respond to abuse and whether their abuse response system is similar to what is recommended by international guidance.

The following figure presents the perceptions of head teachers on their abuse response system. 74% of head teachers in treatment schools and 65% of those in control schools believe their school has an operational response system in place.

Figure 30. Percentage of Schools with Operational Abuse Response Systems in Place



Qualitative evidence discussed later in this report suggests that some girls still feel unsafe in their communities, particularly when traveling to and from school.

These findings are discussed in further detail in the attendance section. Although no cases of sexual abuse were reported, stakeholders in 16 out of 90

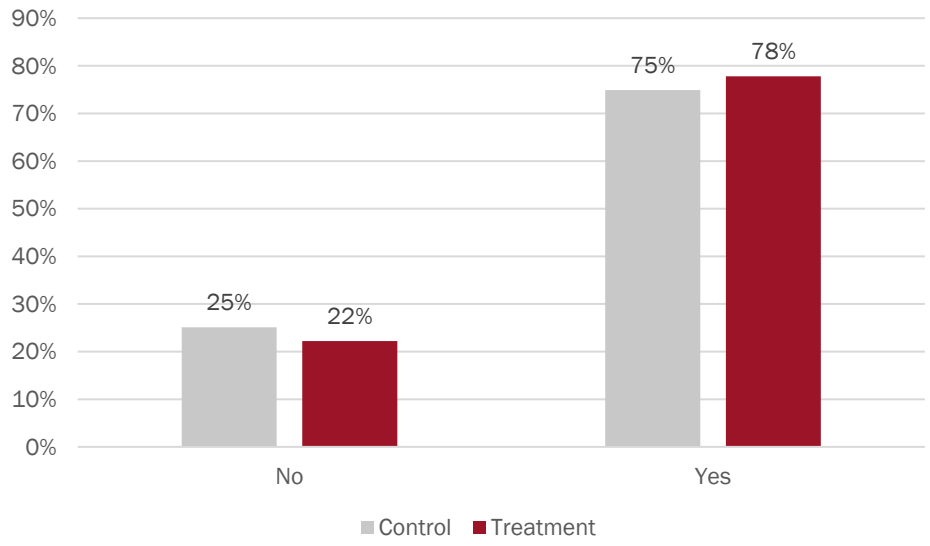
qualitative sessions conducted mentioned the risk of sexual abuse for girls while they travel to and from school. This could be because the project has successfully raised awareness as to this barrier and so stakeholders are more aware that it can happen. It could also suggest that additional measures need to be put in place to support girls to travel to and from school safety and ensure the sustainability of attendance achievements. This is discussed in additional detail in the attendance chapter.

More than two thirds of girls, report being supported by peers and family as they transition through education.

We asked girls the extent to which she believed she gets the support she needs from her family and friends to stay in school (or go to vocational training) and perform well in two separate items, one for family and the other for friends.

78% of girls in the treatment group and 75% of girls in the control group believe she gets they support they need from both family and friends.

Figure 31. Percentage of Girls who believes she gets the support she needs from her family and friends to stay in school (or go to vocational training) and perform well.



Many girls reported that this was because parents believed schooling would leave to greater life chances. Girls stated:

> *"My family provides me with all necessary support that I need for school. They tell me the importance of school. for [my betterment]. They do not want me to remain in farming and advise me that education is the only way to get out of this life"*[150].

[150] FGD with Girls on Transitioning in Primary School 1

> *"My family supported and encouraged me to attend school all the time. Friends [are also] helpful in providing good advice which helps me to stay in school"*[151].

> *"My parents helped and supported me to go to schools to be successful in education …to help myself and help them in the future when they retire"*[152].

> *"My family are highly ambitious about my school; they provide me with everything. They want me to be an engineer in the future and to get out of farming life"*[153].

> "My family and friends have an encouraging opinion about my school"[154].

Several girls also cite the role the project has played in encouraging their parents to support them.

A girl commented:

> *"It is easy to come to school. There are a lot of things make easy to come to school. Such as family encouragement and support provided by CHADET"*[155].

Another agreed, stating:

> *"It is easy for me to come to school. The support and effort made by CHADET community workers in convincing the family to send girls to schools made it easy for me"*[156].

Although girls tended to report the positive influence of project activities on encouraging them to stay in school, some girls reported that they knew of cases where parents still prevented children from attending. One girl commented specifically on child marriage:

> *"Some families may force girls to marry"*[157].

However, the moderator followed up and asked her what she would do if this would happen to her and she stated:

> *"I would report it to the school and the women affairs office… Improving family awareness on the impact of early marriage and importance of girl education is very important*".

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151 FGD with Girls on Transitioning in Primary School 2
152 FGD with Girls on Transitioning in Primary School 1
153 ibid
154 ibid
155 FGD with Girls on Transitioning in Primary School 2
156 FGD with Girls on Transitioning in Primary School 1
157 ibid

This suggests the project has played a role in increasing awareness around child marriage, as well as the appropriate actions girls should take in the event they are encouraged to marry early.

Other girls reported cases where family members would keep girls' home to help with housework or chores, suggesting that this is still a barrier to girls' education:

> *"Maybe a family forces girl to stay home to help with household work. This makes girls miss school days."*
>
> *"There are girls who can face such challenges from her family. In such cases, she needs to tell them the benefits of going to schools for her successful transition".*

One girl reported this to be the case in her family:

> "Most of the time it is easy to come to school, but sometimes my family forces me to stay home to help them working household work and farming activity during harvesting."[158]

Girls suggest that some additional work may need to be done to support their peers who face these circumstances One girl suggested that CHADET should:

> *"establish discussion forums with families to identify problems and increase family awareness".*

Another girl suggested that girls should be able to:

> *"transparently communicate their challenges at school and in the family".*

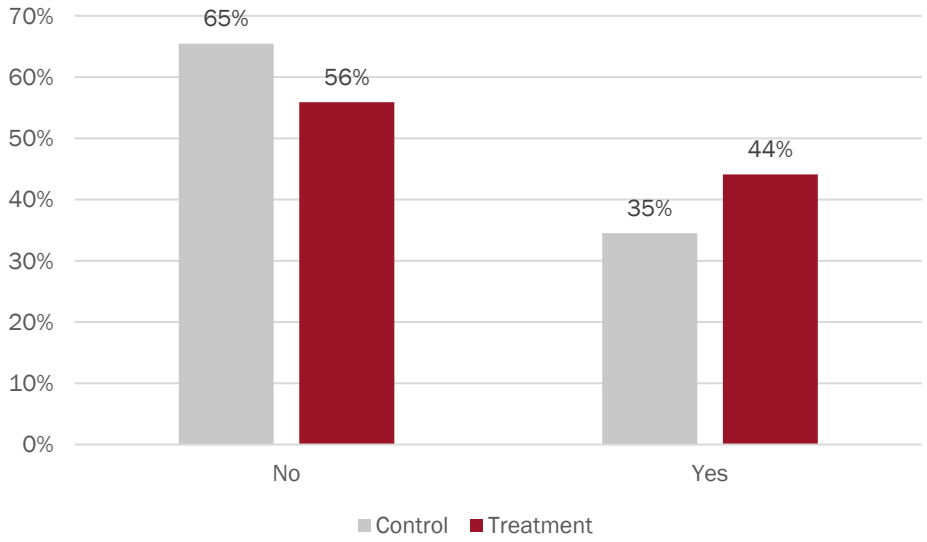
5.3.3 School-level Sustainability Findings

A significantly higher number of treatment schools have libraries compared to control schools and they are usually better stocked. Many books do not relate to what children learn in class,

94% of treatment teachers and 68% of control teachers reported their schools had a library. Of these teachers, 35% of those in control schools and 44% in treatment areas believed their libraries to be somewhat or very well stocked.

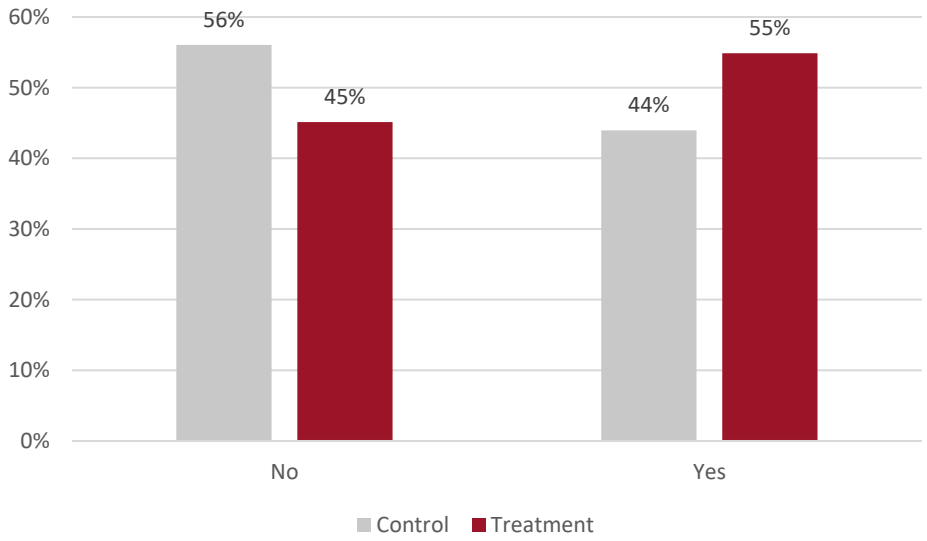
[158] ibid

Figure 32. Percentage of Teachers who believe that their library is well-stocked of books and materials for girls of all grade levels to use



However, many books do not seem to relate to what children learn in class. 44% control teachers and 55% of treatment teachers believe the textbooks available in the library relate to what girls and boys learn in class somewhat or very much.

Figure 33. Percentage of Teachers who believe the books in their school library relate to what children learn in class



In qualitative sessions, several girls reported that they are glad to have the library at school.

Girls stated:

> *"having and using the library is a good experience"*[159]*; "I usually attend schools and use school library in my free time".*

[159] ibid

Some girls reported challenges accessing specific science textbooks for Chemistry, Physics and Biology.

One girl reported that she would like it if the project: *"equipped the library [with these] textbooks and reference materials"*[160]. This was supported by another girl who stated that the library lacked "*textbooks and reference materials*"[161].

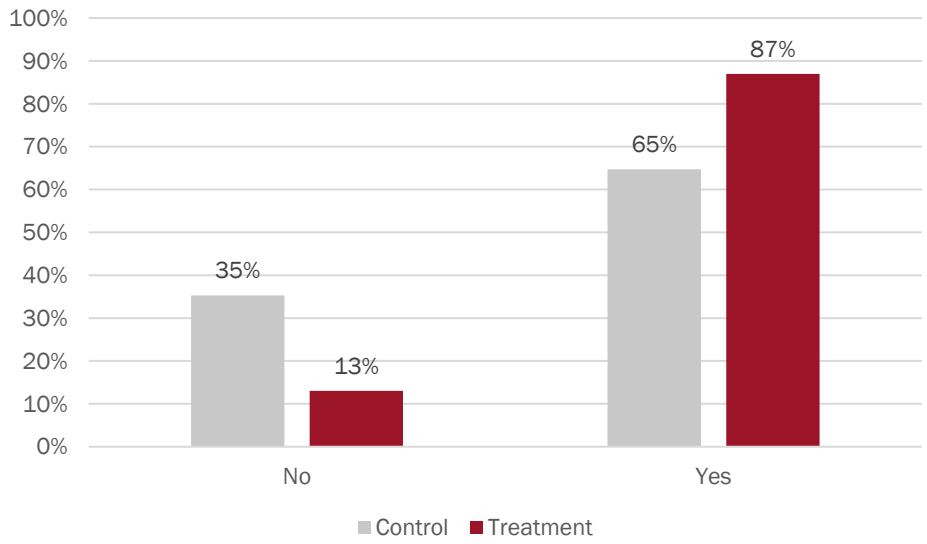
Another girl specifically mentioned the lack of English books as well. The project should consider auditing libraries to ensure there are enough books for all subjects, especially as girls progress to grades 7 and 8. Some girls reported that grades 7 and 8 were in fact harder due to a lack of these reference materials.

Girls in South Gondar tended to report more positive use of the library with none mentioning specific textbooks or references. Many girls reported that libraries in south Gondar had *"sufficient books"*. However, project monitoring activities should confirm this.

87% of treatment schools have mechanisms in place for boys and girls to take books home.

When head teachers were asked if children can take books home, 87% mentioned they could, which is a significantly higher proportion than in control schools where 65% of them mentioned that children can take books home.

Figure 34. Percentage of Head Teachers who mentioned that children can take books home



A higher proportion of lessons in treatment schools than in control schools demonstrate improvements in instructional practices across all domains.

[160] FGD with Girls on Transitioning in Primary School 2 Arsi
[161] ibid

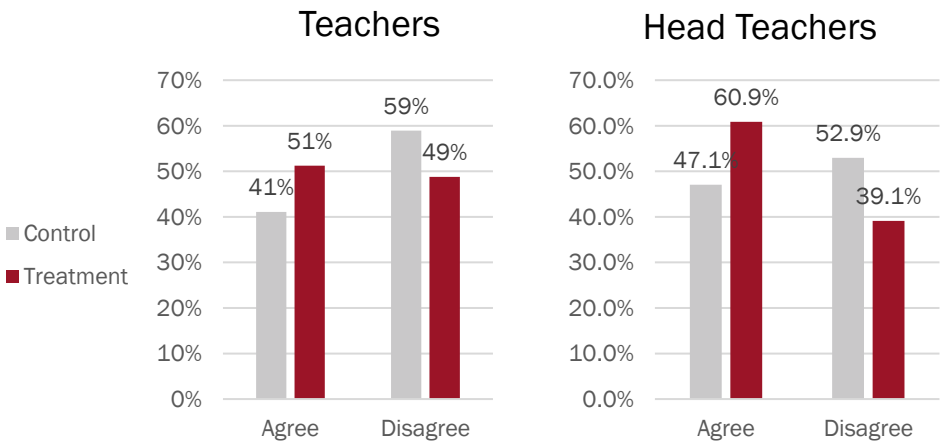
At Midline, the study conducted 167 lesson observations to assess the extent to which teachers had adopted improved planning, pedagogy, and assessment practices. Each of these dimensions are discussed in greater detail in Section 5.2 (Intermediate Outcome: Teaching Quality). Findings indicate that at Midline, a higher proportion of lessons in treatment schools than in control schools demonstrate improvements in instructional practices across all domains. However, by Midline, across all three domains a minority of lessons had adopted improved practices, despite the significant differences between treatment and control, suggesting additional work can be done to promote and institutionalize these practices in project schools between midline and endline.

5.3.4 System-Level Sustainability Findings

Teachers and principals report they are supported by Education bureau experts but only to a limited extent.

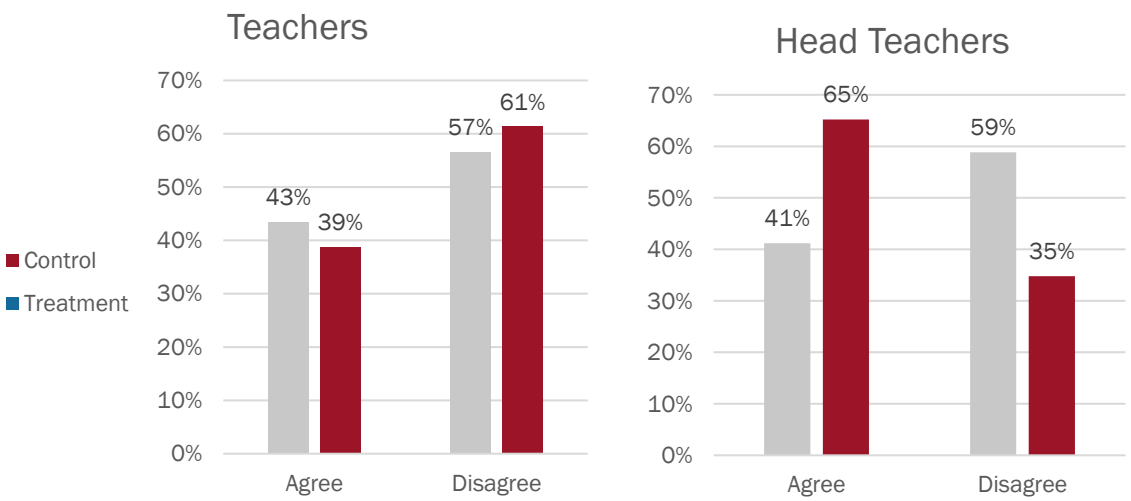
In terms of support with improving pupils attendance, 51% of teachers and 61% of head teachers agreed or strongly agreed with the statement that education bureaus' experts support them or have offered instruction on how to do so. The figure below shows these results compared.

Figure 35. Percentage of Teachers and Head Teachers who believe Education Bureau Experts have supported me to find ways to improve student's attendance at their school



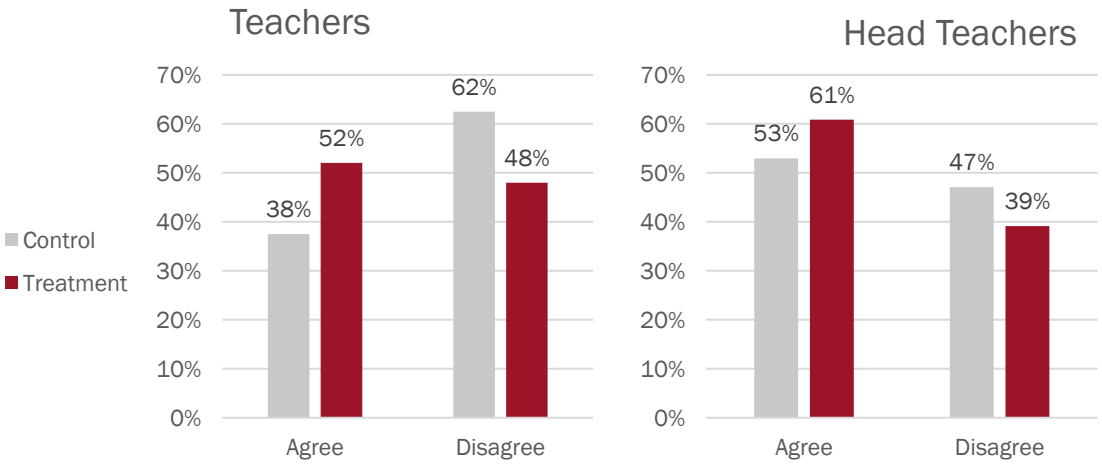
Only 39% of teachers agreeing or strongly agreeing with the statement that "Education Bureau Experts have supported me to find ways to improve Child's Safeguarding at my school" indicates room for improvement in terms of supporting teachers to strengthen child safeguarding systems at their school, highlighted in figure 32 below. Officials might just have more contact with head teachers, who 65% of them in treatment schools mentioned that they had good support in this regard.

Figure 36. Percentage of Teachers and Head Teachers who believe Education Bureau Experts have supported me to find ways to improve Child's Safeguarding at their school



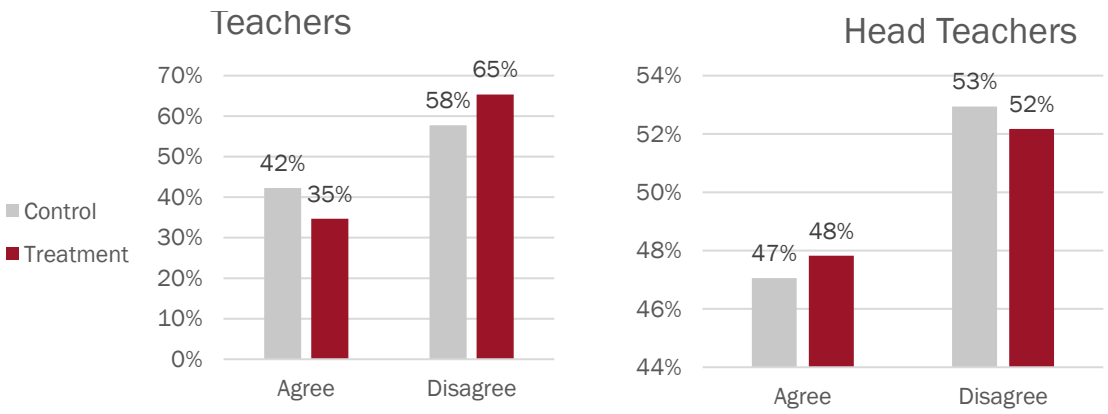
As in the previous indicator, more headteachers than teachers mentioned that education bureau experts have supported to make pedagogic improvements. In treatment schools, 61% of head teachers and 52% of teachers agreed or strongly agreed with the statement, which is more than in control. The figure below shows these results:

Figure 37. Percentage of Teachers and Head Teachers who believe Education Bureau Experts have supported me to find ways to make pedagogic improvements at their school



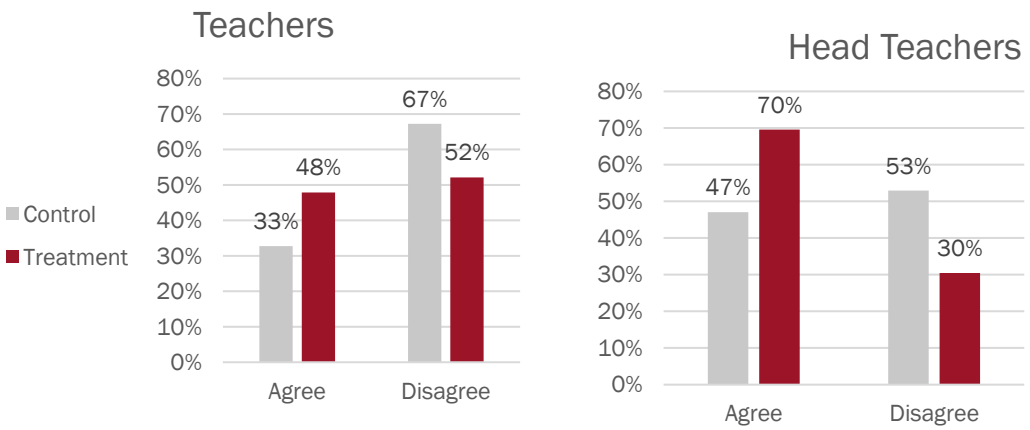
Similarly, Education Bureau Experts are yet to increase their support with abuse reporting. Presently, 48% of treatment head teachers and 35% of teachers agreed or strongly agreed with the statement.

Figure 38. Percentage of Teachers and Head Teachers who believe Education Bureau Experts have supported me to find ways to improve abuse reporting at their school



In terms of teachers outcome reporting, head teachers have shown the highest agreement with the statement, possibly as it is their responsibility or mandate to make teacher reports. 70% of treatment head teachers received support from education bureau experts to report on teachers' outcomes (considerably more than in control).

Figure 39. Percentage of Teachers and Head Teachers who believe Education Bureau Experts have supported me to find ways to improve teacher's outcomes reporting at their school



In KIIs with head teachers and with CHADET staff, it was stated that many teachers and, head teachers to a lesser extent, have a sensitive relationship with education bureau experts influenced by low levels of trust. This, they cite, is because there is a difference in the selection process of teachers and officials into their roles where they feel education bureau experts do not have the correct qualifications and experience to make a valid assessment on teacher performance. The project has aimed to create common spaces to improve these relationships and have also relied on Communities of Practice for a more "collegiate" style of coaching and support for teachers. Overtime, the expectation is

that these groups can work together in some way with education bureau experts to improve teaching practice.

Chapter 5:

Intermediate Outcome Findings

6. Intermediate Outcome Findings

6.1 Attendance

The project aims to improve attendance outcomes of marginalized girls through a reduction in key barriers the project believes are associated with reduced attendance outcomes. To support attendance improvements the project has:

- Set up sanitary corners in schools and provided sanitary pads to girls
- Established Letter Link Boxes (LLBs) in schools to deal with safeguarding incidents (girls can report incidents in the box, and these are gathered on a weekly basis by trained focal teachers for appropriate response)
- Trained Community Coalitions (CCCs) to support child safeguarding in schools, families, and communities
- Trained students (boys and girls), school counsellors, principals, focal teachers, and education bureau officials to support girls sexual and reproductive health
- Trained peer leaders in life skills peer education
- Tracked girls through community workers and schools to identify girls who have dropped out or who are at-risk of drop-out for specific outreach targeting
- Provided assistive devices to girls with disabilities
- Paid for secondary school registration fees and accommodation
- Supported girls with transport to Sexual Health and Reproductive Services
- Purchased school uniforms and school materials for marginalized girls
- Organized secondary school transition camps to promote transition through preparatory camps
- Supported girls' clubs to produce advocacy and communication activities targeting negative parent, caregiver, and community member attitudes and behaviours towards girls' education
- Supported girls with fees to access TVET and transport to and from TVET

Performance against logframe indicator targets for this intermediate outcome is shown in the table following.

Table 30: Intermediate outcome indicators as per the logframe

IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will IO indicator be used for next evaluation point? (Y/N)
% girls whose average attendance in school improves	N/A	25.4%	21.8%	No. Control outperformed treatment (target was set as 3% above control group; 22.4% of girls in the control group improved their attendance levels)	TBC	Yes
Main qualitative findings						
• FGDs with girls, parents and caregivers suggest the project's work to provide books and school materials, uniforms, and funds for school registration fees have been effective in supporting girl's attendance outcomes. • FGDs with girls, parents, and caregivers report that some girls find the way to school unsafe and this can hamper attendance outcomes. Additionally, parents report that early marriage remains a challenge in the region for girls.						

Please follow the format in this table for each indicator

Attendance was measured for treatment and control girls through an individual-level average attendance rate. This rate was calculated through historical attendance data for a calendar month. Historical attendance was collected from school records for the same month this year and last year to enable the study to compare changes in attendance between periods at the individual level.

This attendance rate is defined as the percentage of days the girl was present in the school calendar month. The formula for calculating attendance is shown below.

$$Attendance\ Level = \frac{DaysPresentInSchoolCalendarMonth}{TotalDaysSchoolOpenInCalendarMonth} x100$$

A month was chosen in each region in consultation with project staff to ensure it was a month where attendance would not be affected by agricultural seasons, rainy seasons, and school holidays. The same month was used for both periods. This monthly measurement of attendance is used as a proxy to understand attendance on the whole as the month chosen was a 'typical' calendar month a girl would be expected to be in school.

The attendance rate represents the percentage of days the girl attended school in the same chosen month at each evaluation period.

As attendance was measured historically for the same girl at Midline, it is possible to conduct a DiD regression to determine the project's impact on attendance.

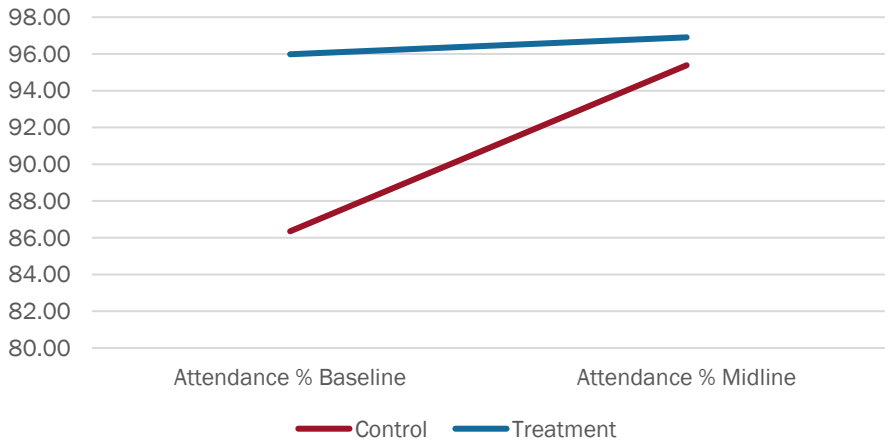
A linear regression using treatment to predict attendance outcomes demonstrates that the project did not have an effect on attendance levels between baseline and midline. This is likely due to the fact that attendance levels in treatment schools at baseline were already high due to the first phase of the project, GEC1.

While the model is significant ($p<0.05$), The direction of the Beta indicates the project may have had a negative effect on attendance outcomes. The same is true if we control for a girls' grade level, or her school. However, it is unlikely that the project had a negative impact on attendance. Aggregate attendance levels at both periods as displayed in the figure following demonstrate that between baseline and midline, the project had far less room to improve attendance outcomes given the higher starting point in attendance at baseline.

This is likely due to the fact that attendance outcomes had already been improved through the first project and at higher levels of attendance, where girls are already attending an average of 96% of the time, additional gains are more difficult to achieve.

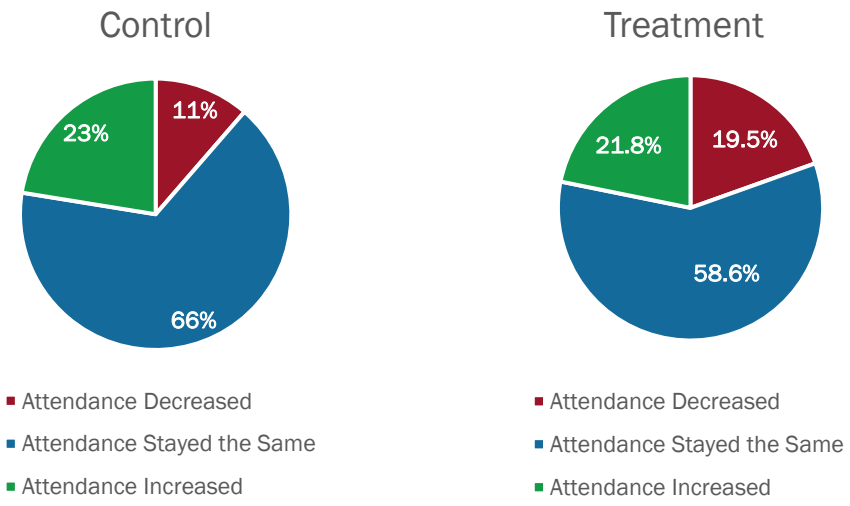
The figure following reports mean changes in attendance for both the treatment and control groups. The control group had a greater average change in attendance levels between baseline and midline than the treatment group. This would suggest there has been an attendance drive in control schools or the regions on the whole and this has supported girls in control schools to improve their attendance levels.

Figure 40. Mean Attendance (%) in Control and Treatment between Periods



The figure below reports the proportion of girls whose attendance decreased, stayed the same, and increased between evaluation for each evaluation group.

Figure 41. Attendance Changes since Baseline by Evaluation Group



21.8% of girls in the treatment group increased their attendance between baseline and midline.

22.4% of girls in the control group increased their attendance levels. The project did not meet the target of 3% more girls in treatment improving their attendance outcomes than in the control group.

Most girls in both evaluation groups maintained their attendance levels: 58.6% in the treatment group and 66% of girls in the control group. A large proportion of girls' whose attendance stayed the same between periods in both groups attended school 100% of the time at both periods.

19.5% of girls in the treatment group decreased their average monthly attendance between periods, a much higher proportion than in the control group, where only 11% of girls decreased their attendance between periods.

Based on these findings the project should consider how it can better support girls attendance outcomes.

To understand this further, the figures following reports the changes by zone . In the both the evaluation and treatment group, the largest proportion of girls to increase their attendance between periods was in South Gonder: 27.1% of control girls and 24.5% of treatment girls. In both groups the highest proportion of girls to decrease their attendance between periods was in Arsi: 17.4% of control girls and 16.2% of treatment girls.

In Arsi and South Gonder a higher proportion of girls in the control group improved their attendance than in the treatment group. However, in South Wollo, a higher proportion of girls in the treatment group improved their attendance than in the control group.

Figure 42. Attendance Changes by Zone

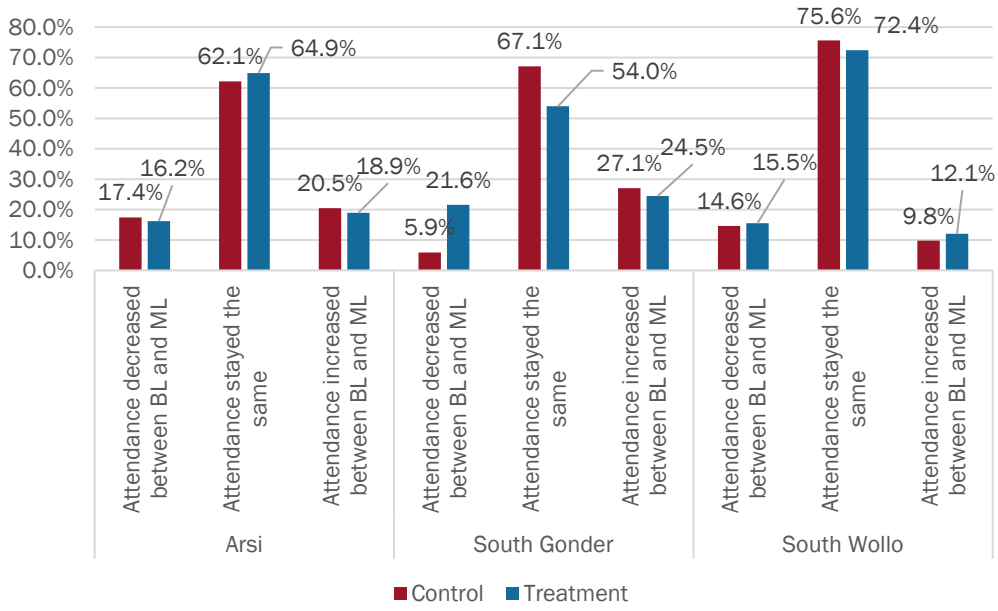


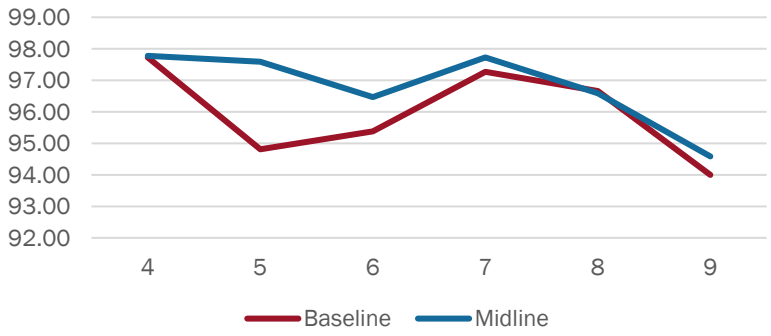
Figure 43 reports mean attendance by grade level at baseline (original cohort membership) for girls in the treatment group at both periods. Average attendance for girls in Grade 5 at Baseline exhibited the largest aggregate improvement between periods, followed by average attendance for girls in Grade 6 at Baseline.

As grade level at baseline increases the change in attendance tended to decrease. This suggest it is harder to improve girls' attendance as they go up in grade level.

Moreover, from Grade 7 through Grade 9, as grade level increases attendance tends to decrease, on average. This suggests that girls in higher grade levels generally have lower attendance levels.

This may be due to the fact that girls in these grade levels are more likely to face the risks of early marriage, abduction, and forced migration. Additionally, as girls enter adolescence, they are likely to face barriers associated with attending school due to menstruation. These barriers are discussed in further detail later in this section.

Figure 43. Mean Attendance by Original Cohort Grade Level for the Treatment Group



Analysis using attendance improvements to predict each learning outcome (numeracy, English literacy aggregate score, English oral reading fluency, local language aggregate score, and local language oral reading fluency) were all significant. This suggests that improving girls' attendance does not directly impact her learning levels.

To understand the role the project did play in improving attendance outcomes we reviewed several project related activities and how participation in these activities influenced attendance outcomes. Results for linear regressions using participation in these activities to predict the first difference in attendance are shown in the table following.

Table 31. Direct Influence of Project Activities on Attendance Outcomes

Participation in project activity / reached by project activity	Proportion of girls in activity/ reached by project	Significant predictor of attendance improvements?	Beta & R^2 (if significant)	Significant predictor of attendance level at Midline?	Beta & R2 (if significant)
Made use of reading corner	49.4%	Not sig.	N/A	Not sig.	N/A
Member of Girls Club	46.8%	Not sig.	N/A	Not sig.	N/A
Received support to cover registration fees for secondary school (of secondary girls)	25.4%	Not sig.	N/A	Not sig.	N/A
Received free school uniform	56.9%	Not sig.	N/A	Not sig.	N/A
Attended homework tutorials	81.4%	Not sig.	N/A	Not sig.	N/A
Attended secondary school summer transition camp (of secondary girls)	29.6%	$p<0.05$*	Beta=2.33; R^2=0.056	Not sig.	N/A
Access sanitary corners (of girls over 11 who started menstruating)	64.3%	Not sig.	N/A	Not sig.	N/A

**Statistically significant relationship while controlling for membership in all other project activities*

For secondary girls, having attended secondary school summer transition camps was a statistically significant predictor of attendance improvements. Attending the transition camp resulted in girls improving their attendance by 2.3% between evaluation periods.

The model was able to explain 5.6% of variance in the data. This suggests that secondary school transition camps are a successful means to support attendance improvements between periods for secondary girls.

No direct relationships were found for any other project and improvements in attendance outcomes. This may be because the relationships between participation in these activities and other activities are mediated by other variables and does not mean these activities do not have any influence on attendance outcomes. The influence is however not necessarily direct and is not visible at statistically significant levels.

Qualitative evidence supports the role CHADET has had in improving girls' attendance through school uniforms, books, and financial support for registration fees.

When caregivers were asked if it is easy or hard to send their girls to school, one participant said,

"The support provided by schools and CHADET has made it easy to send them [to school]. I do not worry about buying school uniforms and exercise books"[162]

Another interviewee stressed the importance of monetary aid provided by CHADET towards their children's attendance,

"It supports the family economy and minimizes the expense of family who send many children to school. It helps to keep them all at school"[163]

Several other caregivers spoke about the importance of financial support they received and their ability to send their daughters to school thanks to it:

"And the other reason that made sending girls to school for the society is the support we get from CHADET." [164]

Another parent/caregiver said,

"To speak frankly, if I had to buy her school stationeries and uniforms, she might not be able to go to school because I could not afford it"[165]

[162] FGD with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas (Arsi)
[163] FDG with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas", Arsi
[164] FGD with caregivers on attendance change", South Gondar
[165] FGD With Girls On Transition To And Within S.S rural", South Wollo

When interviewed, girls also highlighted the positive intervention of CHADET and their ability to attend school thanks to both monetary and material support. One interviewee said,

"Yes. If I could not get stationeries, I will not attend class"[166]

In another focus group session, one interviewee said,

"They have given me pen, exercise book, school uniform, and pencil. And these have helped me to come to school".[167]

All six participants present in the focus group agreed with the statement.

According to other responses, girls also accredited the distribution of menstrual pads from CHADET as being another important deciding factor in school attendance.

One participant said

"They gave us exercise books, pens, school uniforms and pads. They also give us tutorials. This helped us to come to school. For example, if I am menstruating, I use the pad and come to school"[168].

Another girl accredited her improved attendance to interventions from CHADET:

"*The provision of sanitary pads has changed my school attendance. At previous time I used to stay home"*[169].

Based on the multiple responses from participants that spoke about the importance of support from CHADET, it appears that breaking down the barriers that prevent girls from attending school such as lack of financial support and improved access to sanitary wear has supported girls to improve their attendance outcomes.

However, some girl participants also suggested ways in which the program could be improved.

For example, one participant said

"*...there are rural areas who are much worse than us. I would like the project extend the support to them too"*[170]

Others hoped that the support would extend to their male peers:

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[166] FGD with girls with low attendance in P.S Rural", South Wollo
[167] FGD with girls low attendance
[168] FGD with girls low attendance", South Gondar
[169] ("FDG with girls on Transition to and within Secondary Schools in Boru High School with Rural Girls", Arsi).
[170] FGD With Girls with Low Attendance S.S Urban", South Wollo

"The helpless boy students must also be considered … since they equally need help"[171]

Another participant suggested that the program ensure materials are available more promptly,

"The materials are given to us after we buy them and start class… this should be corrected"[172]*.*

According to focus group discussions, girls' personal motivation plays a role in promoting attendance improvements.

Qualitative evidence suggests that a strong contributing factor towards girls' school attendance stems from an inner drive to obtain an education.

When asked if coming to school had any value, a participant replied:

"I get knowledge through education and become confident and competent enough like boys. if I do not go to school I would remain in the state of illiteracy and become dependent, at the end of the day."[173]

Another participant in the same discussion stated:

"For me going to school is everything, it is a place where I can shape my future life."[174]

This notion of obtaining knowledge in order to break down barriers of illiteracy and ignorance were further echoed in other schools and zones. Seven out of eight participants from a school in the South Wollo zone mentioned that they valued coming to school in order to pursue knowledge. One student said that they come to school in order:

"to get knowledge and change ourselves"[175]

Another girl spoke about the person she would become if she is continuing to attend school:

"School builds [a] student's identity. If we are serious about school, we get to have a determined, confident, proud identity. We become knowledgeable when we learn more."[176]

Another participant also mentioned that they benefit from attending school because:

[171] FGD With Girls with Low Attendance S.S Urban", South Wollo
[172] FGD with girls on Transition to secondary school", South Gondar
[173] FGD with girls with low attendance (Arsi)
[174] ibid
[175] FGD With Girls With Low Attendance In S.S Rular (South Wollo)
[176] FGD With Girls With Low Attendance In S.S Rular (South Wollo)

"I get knowledge through education and become confident and competent enough"[177]

Other interviewees emphasized the importance of attending school because of the moments provided to them to foster crucial social skills necessary later on in life. As one participant put it,

"Of course, we learn from our parents when we are born but socialization is not just from family but from school too"[178]

Five students out of eight in this particular focus group emphasized the valuable skills gained from communicating with peers. One student put this quite eloquently by saying,

"School is important to experience interactions. We all came here from different places and we have such different experience that it becomes like a harmony. Even a journey from home teaches you something"[179].

Qualitative sessions suggest that positive parental attitudes help increase attendance.

When caregivers were asked if they send both their boys and girls to school, their responses made it clear that they were almost all in support of educating their children regardless of sex. One respondent said:

"We have to send both to school. Both are my children, why should I make such differences? Even girls should be encouraged more."[180]

Another parent supported this by saying,

"I send them both to attend school. I treated both equally in providing them with everything they need for school"[181]

It is also clear that parents/caregivers expressed their desire for their children to succeed later on in life improve their current circumstances. One participant described how much she had to do in order to make sure her child was getting an education:

"I want them to learn, be happy, be independent and help their family. My daughter is getting support and she is learning. I am trying to do what I can. I sell enjera, tela, and areke"[182]

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177 FGD with girls on Transition to and within Secondary Schools in Boru High School with Rural Girls (Arsi)
178 FGD With Girls with Low Attendance S.S Urban (South Wollo)
179 FGD With Girls with Low Attendance S.S Urban (South Wollo)
180 FGD with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas (Arsi)
181 FGD with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas (Arsi)
182 FGD with Parents and Caregivers, South Gondar

To understand the influence of barriers and characteristics on attendance improvements in the control group, the study conducted a series of regression models using sub-group membership as predictors of attendance improvements.

Girls who do not feel safe in school were more likely to improve their attendance between periods in the treatment group according to linear modelling, likely due to project activities.

Project activities resulted in girls in this sub-group improving their attendance by 3.71% between baseline and midline ($p<0.05$).

Despite these improvements, some girls in qualitative sessions still report that they do not feel safe traveling to and from school. Girls are concerned about the risk of sexual assault reinforcing the importance of project activities targeting school safety.

Although in all situations where sexual assault was discussed, no specific of cases abuse were disclosed, fears and concerns around sexual assault was mentioned in 16 transcripts of the 90 qualitative sessions conducted. This suggests fears around sexual assault are pervasive in target schools and communities, which may partially be due to the project raising awareness on the issue.

As one girl discussed, "*The road we take is dangerous. Even if you shout nobody will come to your help. Since we are girls, we are very vulnerable*"[183]. Safety appears to be of concern for girls travelling to and from school, especially for those who live in rural areas. Another participant in the same discussion said, "*In the forest we go through to get to school, there is no semblance of a life. It is scary. Anyone can attack us any time*"[184].

Another girl from a separate discussion who was from a rural area and had to travel to the city said, "*It was difficult because the school is far and there are bandits on the way*"[185]

A colleague of hers emphasized this during the discussion, "*It was difficult [to travel] because they say there are bandits and we were afraid that they will harm us*"[186].

A prominent issue regarding safety that was raised during these discussions was the constant fear of becoming a victim of sexual assault. When one girl was asked if she would be able to achieve her dreams, she said, "*I do not think it will come true. Because on our way from home to school there are men who snatch*

[183] FGD With Girls With Low Attendance In S.S Rular", South Wollo
[184] FGD With Girls With Low Attendance In S.S Rular", South Wollo
[185] FGD with Girls low attendance", South Gondar
[186] "FGD with Girls low attendance", South Gondar

our exercise books and pens and tries to rape us"[187]. This specific case has been reported to the project's child safeguarding team.

In the same discussion, another participant said that one of the reasons why it was difficult to attend school last year was because *"…when we come to school since we are girls some men bother us on our way here. They won't let us pass so that made it difficult"*[188].

In an interview with girls transitioning to secondary school, this was an issue that was also brought up again, *"But the difficult part is the road from school to home. We face many things like rape and forceful action on our way"*[189].

Caregivers too raised this issue on several occasions throughout these interviews. One participant, when responding to whether it was safe to send girls to school, said, "The other problem is that girls face many things on their way to and from school like rape and abduction. So, we still worry if they can get home safe" ("FGD with caregivers on attendance change", South Gondar). Another caregiver in the discussion reflected similar sentiments and said, "It was difficult at first because we used to worry about what would happen to them on their way" ("FGD with caregivers on attendance change", South Gondar).

To understand the role of barriers on attendance outcomes, we ran several regression models using barriers to predict attendance improvements.

Teacher absenteeism resulted in girls decreasing their attendance levels in the treatment group by 1.9% according to linear modelling.

This project should consider how it can address teacher absenteeism in schools as it has a statistically significant negative effect on attendance levels between evaluation periods.

Discussions point out that family circumstances and/or obligations are prominent barriers that keep girls away from school.

According to several responses gathered from interviews, household work kept appearing as a major factor preventing girls from attending school. In one group discussion, half of all respondents linked their absences with the amount of work at home.

One participant in this group said,

"*it is true, there are days I do not come to school, when my family asks me for help to assist in household work and during harvesting*"[190].

Another student similarly commented,

[187] FGD with girls low attendance", South Gondar
[188] FGD with girls low attendance", South Gondar
[189] FGD with girls on transition to secondary school", South Gondar
[190] FGD with girls with low attendance", Arsi

"*When my family encountered different problems requires my helps, during this day I do not come to school*"[191].

Students from schools in different zones re-iterated this,

"The reason why I do not come to school could be family problem or work load at home"[192]

Some girls pointed out that students who came from rural areas were most likely to miss classes as they had to commute a greater distance,

"Those students were rural area students who work a lot of works in their village and at home. So, on the weekends they go back there to work and do not come back to school on time. So, they miss classes"[193].

A group discussion consisting of girls from rural areas also overwhelmingly pointed out (five out of six participants) that housework was a reason for missing classes.

Four out of six students also reported that living in rural areas meant that distance was a factor for absenteeism, "*I live far off [sic] the school. We may encounter up on many dangers, if there could be a way to shorten our journey to school it would be better*"[194]

Multiple participants also mentioned that falling ill prevented them from attending school on certain days. However, while a passing illness may be inevitable for any school-going child, several girls reported having to stay at home to take care of family members who were ill.

One girl reported, "*I do not come to school if I am sick and also sometimes if my mother is sick. I have to take care of her because no one is there to do that*"[195]

A different participant highlighted her responsibilities at home:

"*When my mom gets sick and went to a hospital, I was absent. If such problems occur I skip class*"[196].

A participant also discussed how she was responsible for other family members and had to skip school because of this, "*I do house chores and look after our home when my brother got sick*"[197].

[191] ("FGD with Girls with low attendance", Arsi
[192] FGD with Girls low attendance", South Gondar
[193] "FGD with girls on Transition to secondary school", South Gondar
[194] "FGD With Girls With Low Attendance In S.S Rular", South Wollo
[195] ("FGD with Girls low attendance", South Gondar)
[196] FGD with Girls with low attendance in P.S Rural", South Wollo
[197] "FGD with Girls with low attendance in P.S Rural", South Wollo

The project should consider including messaging on this in family hubs and other activities targeting parents and caregivers to ensure they understand the effect that this has on girls' attendance.

Qualitative discussions also highlight that girls who have been provided with materials like school uniforms and stationery to attend school are able to attend school due to this support.

Some participants spoke about the importance of the aid given to her by CHADET. As one girl stated:

"To speak frankly, if I had to buy her school stationeries and uniforms, she might not be able to go to school because I could not afford it"[198].

Some girls still face barriers to attending school due to lack of supplies.

One participant said, "*my family is poor and do not [sic] have strong income to support me in attending schools, for this reason they do not encourage me to attend schools"*[199].

This same participant went on to further elaborate that her family could not afford basic supplies required to attend school, "school uniform and exercise books, my family was expected to provide me, it was hard for them economically to arrange this"[200].

Another participant also pointed out the importance of stationery by saying that, "*Some students would have not come at all since they won't have the school necessities"*[201].

When caregivers were asked what would make it easier to send girls to school, one participant said, "[*if] schools provided them school uniform and exercise books"*[202]

Another participant emphasized the importance of having a family with an income, "*As I mentioned before, her family income is a base for her, if they have no enough [sic] income to teach her and she didn't get any support from anyone it's difficult for her to continue"*[203].

Qualitative evidence suggests that the provision of sanitary wear has supported girls to attend school.

[198] FGD With Girls On Transition To And Within S.S rural", South Wollo
[199] FGD with girls with low attendance", Arsi)
[200] FGD with girls with low attendance", Arsi
[201] FGD with girls with low attendance in P.S Rural", South Wollo
[202] FGD with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas", Arsi
[203] FGD with caregivers of primary school girls on attendance and transition", South Wollo

One of the other more prominently mentioned key factors that prevent girls from attending school was the absence of financial means to purchase sanitary pads.

When asked why they found it difficult to attend school, two girls both said, "*we do not go to school at previous time when menstruations come to us because usually [sic] get sick and even it was very difficult to find easily money from family to buy sanitary pads*"[204].

Another participant in the same discussion, spoke about her experiences before the CHADET intervention, "*I used to miss class when I experience menstruation*"[205].

A participant from a different discussion also spoke about the importance of menstrual pads, "*At previous time I and others leave schools to find sanitary pads and sometimes stay home until it stops*" [206]

Qualitative evidence suggests that early marriage is a barrier to attending school, validating this project assumption. Some stakeholders report that attitudes towards early marriage are gradually changing.

When girls were asked to explain the barriers that prevented girls from attending school several girls discussed early marriage and abduction. The project reports that when abduction occurs it is often arranged by a girls' family and the future husband's family.

Girls of different ages, including those transitioning to or currently attending secondary school also expressed similar concerns. For example, a participant within that age group listed "early marriage by family"[207] as an impediment that could inhibit her from having an education and achieving her dreams.

Another participant, also within the group of those transitioning to or currently attending secondary school, said "Yes I [sic] there will be challenges that could stop me from continuing learning like marriage"[208].

Different stakeholders, such as caregivers, also held similar opinions about early marriage being one of the reasons why girls would not attend school.

One caregiver also believed that "*early marriage and migrating to Arab countries improve their family's earnings*"[209] and that these were some of the primary reasons why girls dropped out of school.

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[204] FGD with girls with low attendance", Arsi
[205] ("FGD with girls with low attendance", Arsi
[206] ("FDG with girls on Transition to and within Secondary Schools in Boru High School with Rural Girls", Arsi).
[207] ("FDG with girls on Transition to and within Secondary Schools in Boru High School with Rural Girls", Arsi)
[208] ("FGD with girls on transition to secondary school", South Gondar).
[209] ("FGD With Girls On Transition To And Within S.S rular", South Wollo)

Respondents also confirmed that they knew girls who had dropped out for this reason, "*Yes there are some that I know who were involved in child marriage*"[210],

However, during the conversation, another caregiver acknowledged that perceptions were gradually shifting, "*The society wants females to learn. It has started to abandon child marriage and let them marry whenever they want after their education*"[211]

Evidence suggests that boys may not attend school in order to seek employment either to provide for their family or themselves

According to a focus group discussion with boys, one of their main reasons for not attending school was because they needed to find employment.

When asked why they had not attended school, one participant said, "It *was because I couldn't get materials I wanted. So, I go to work to provide for myself*"[212]

Another participant said, "*It was because I have to work and help myself and my family since I have poor family*"[213].

Six out of the eight participants acknowledged that they had had to stop attending school and find work for these reasons.

When girls were asked why boys did not attend or had quit school, several of them also recognized that they were compelled to quit school owing to their family´s financial situation.

One participant said, "*I think they have to work and earn money to provide for themselves*"[214].

Another girl responded by saying, "*Mostly they are from poor family, so they have to work*"[215].

Caregivers suggested that boys generally dropped out of school voluntarily in order to work.

When asked which obstacles boys may face when attending school, a respondent said, "*Sometimes boys have a friend older than them then many times they discuss their problem during that time they talk about the students those finish higher education and still didn't get a work then they said that why we learn?*"[216].

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[211] ("FGD with caregivers on attendance change", South Gondar).
[212] FGD with boys on attendance change session 1 (FGD type 2)", South Gondar
[213] FGD with boys on attendance change session 1 (FGD type 2)", South Gondar
[214] FGD with attendance change session 2(type 1FGD)", South Gondar
[215] FGD with attendance change session 2(type 1FGD)", South Gondar
[216] FGD with caregivers of primary school girls on attendance and transition", South Wollo

Another participant said, "*They tell their parents that they are going to school, but they go to other places and if their family can't give them enough money they won't go to school*"[217] .

Qualitative evidence also suggests that challenges to attendance faced by boys are less than those endured by girls.

When caregivers were asked what challenges, boys faced when it came to attending school, one participant said, "*yes they can face challenges result [sic] in drop-out from school. But the boy's challenges may be less and usually stop schools by themselves*"[218].

Another participant commented on a boy´s willingness to learn as a challenge to attending school, "*the other one is if his willingness to learn is low he didn't want to learn*"[219].

When a girl was asked if it was easier to send girls to school, they said, "I *think it is easy. However, girls are susceptible to dangers more than boys, the main thing is controlling their whereabouts*"[220]

When asked if there were challenges that girls faced in order to attend school, another caregiver said, "community culture and tendency to share them household work than boys"[221].

This suggests that housework is primarily seen as a task fulfilled by girls, validating a central project assumption and project messaging on the issue.

[217] ("FGD with caregiver", South Gondar).
[218] "FGD with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas", Arsi
[219] ("FGD with caregivers of primary school girls on attendance and transition, South Wollo).
[220] FGD With Girls On Transition To And Within S.S rular", South Wollo
[221] ("FDG with Caregivers of Primary School Girls On Attendance and Transitions with Parent of Rural Areas, Arsi

6.2 Quality of Teaching

The project aims to the quality of teaching through teacher training, on-going coaching, and mentorship to trained teachers, the provision of extended learning opportunities to girls and support to local education officials. Specifically, the project has:

- Trained teachers in improved pedagogy, gender-sensitive teaching, child safeguarding, improved literacy and numeracy instruction, and inclusive teaching strategies
- Established teacher resource centres at Woreda Education offices
- Set up communities of practices (COPs) where teachers can discuss improved instructional practices
- Trained school administration on child safeguarding and how-to better support instructional improvements to enhance teaching and learning

Performance against logframe indicator targets for this intermediate outcome is shown in the table following.

Table 32: Intermediate outcome indicators as per the logframe

IO indicator	BL	ML Target	ML -BL Indicator at ML	ML-EL Indicator at ML	Target for next evaluation point	Will IO indicator be used for next evaluation point? (Y/N)
% lessons that demonstrate adoption of better (i) preparation, (ii) pedagogy, and (iii) assessment	60%	N/A[222]	69.1[223]	16.0%	TBC	Yes, but with adjusted operationalization based 1-3 rating
	85%	N/A[224]	71.3%[225]	46.8%	TBC	
	85%	N/A[226]	84.0%[227]	38.3%	TBC	

[222] Due to the limited sample size at Baseline, refinement of domains and competencies in the measurement tool and post Baseline revision of logframe indicator, the difference between BL-ML is not representative so not relevant to set a target for Midline
[223] One indicator is now used for BL-ML comparisons and another for ML-EL comparisons
[224] Due to the limited sample size at Baseline, refinement of domains and competencies in the measurement tool and post Baseline revision of logframe indicator, the difference between BL-ML is not representative so not relevant to set a target for Midline
[225] One indicator is now used for BL-ML comparisons and another for ML-EL comparisons
[226] Due to the limited sample size at Baseline, refinement of domains and competencies in the measurement tool and post Baseline revision of logframe indicator, the difference between BL-ML is not representative so not relevant to set a target for Midline
[227] One indicator is now used for BL-ML comparisons and another for ML-EL comparisons

IO indicator	BL	ML Target	ML -BL Indicator at ML	ML-EL Indicator at ML	Target for next evaluation point	Will IO indicator be used for next evaluation point? (Y/N)
% of lessons that demonstrate adopting (i) gender sensitive teaching practices and (ii) a positive environment for girls with disabilities	N/A	N/A	N/A	57.6%	TBC	Y
Main qualitative findings						
• To be added						

To assess the extent to which lesson demonstrate the adoption of better preparation, pedagogy and assessment between Baseline and Midline the study had to rely on the lesson observation designed for Baseline. This indicator was revised after the Baseline, which meant it had to be set for the Baseline after the design and implementation of the lesson observation at Baseline.

In practice, this will mean a different operationalization of the indicator will be used for Baseline to Midline comparisons than for midline to endline comparisons.

For Baseline this indicator was set by mapping the practices observed at baseline onto the three dimensions targeted by the project. A summary of this mapping is shown in the table below. Additional practices were also observed at Baseline, before the project refined the specific domains it would target, based on analyses of findings.

Table 33. Mapping of Practices Observed at Baseline Against Target Domains for Indicator Setting

Domain	Items included at BL that match relevant items included in final ML tool
Preparation	The tutor/teacher is using a lesson plan based on students' different learning needs
	Lesson objectives are clear, measurable (SMART) and based on students' individual learning needs
	The tutor/teacher regularly reviews the session objectives throughout the session
Pedagogy	The tutor/teacher helps children solve problems
	Children spend more time in class on learning tasks other than waiting or listening to the teacher.
	The tutor/teacher nominates individual students to answer questions; not just those who raise their hands.
	The tutor/teacher asks 'open questions' to test the children's understanding; not just repeating, or saying yes/no
	The tutor/teacher includes/caters for all children in the lesson.
	The tutor/teacher involves a range of students when questioning (not just the same ones)
	Children ask the tutor/teacher questions

Domain	Items included at BL that match relevant items included in final ML tool
	The tutor/teacher uses clear and understandable language
	The teacher listens attentively to children
	The teacher praises the children
Assessment	Teacher gives formative feedback on the homework / tasks completed by the girls
	The tutor/teacher gives a summary at the end of the tutorial
	The tutor/teacher checks learning has advanced since previous tutorial
	The tutor/teacher sets individual learning targets for the next tutorial

At Midline lesson observers rated a revised set of items for each of these three domains on a scale of 1-3. At Baseline, rather than rate the level of adoption, observers simply reported if the practice was observed (yes/no). To calculate a baseline indicator, each teacher was observed 3 times. Results were averaged per domain, with participants who demonstrated competency in a given area in the majority of lessons (2/3) included in the indicator.

It should be noted that sample sizes for lesson observations at Baseline were not sufficient to be generalizable to the project as a whole or by zone .

Table 34. Baseline Lesson Observation Results by Domain

Domain	Type	Overall	Arsi	South Gondar	South Wello
Preparation	HW Tutorials	65.8% (25/38)	50.0% (3/6)	100.0% (3/3)	65.5% (19/29)
	Lessons	60.0% (12/20)	66.7% (2/3)	N/A (n=0)	58.8% (10/17)
Pedagogy	HW Tutorials	94.7% (36/38)	100.0% (6/6)	100.0% (3/3)	93.1% (27/29)
	Lessons	85% (17/20)	66.7% (2/3)	N/A (n=0)	88.2% (15/17)
Assessment	HW Tutorials	78.9% (30/38)	83.3% (5/6)	100.0% (3/3)	75.9% (22/29)
	Lessons	85%* (17/20)	100%* (3/3)	N/A (n=0)	82.35%* (14/17)
**no data across all relevant domains at baseline- limited validity of measure*					

To obtain a score for lessons for the domain of assessment at Baseline, we only looked at results for the item "The tutor/teacher gives a summary at the end of the tutorial". This is a limited measure of assessment practices. However, in order to remain comparable, the sample approach was used for the baseline to midline indicator. Based on this item: 85% of teachers in lessons observed gave a summary at the end of the tutorial.

At Midline, the study conducted 167 lesson observations divided between treatment and control. At Baseline, a binary yes/no measure was used for each item. At Midline, a 3-point rating scale aligned with a rubric for each item. The rubric and tool have been included in Annex 12. Lesson observers attended a 1-day training, a pilot, and a moderation meeting to practice administering the assessment and moderating scores. The training was facilitated by ChildHope, CHADET and the external evaluator. Lesson observers included Woreda education officials from the zone, and enumerators with previous experience in classroom teaching.

To create comparable indicators to Baseline, we used the same items included in the Baseline indicator mapping. However, we considered a mean score 2 or 3 on the 3-point scale per dimension, as meeting the requirements for the indicator.

Using this approach, the study finds that:

- 71.3% of Midline lessons in the treatment group demonstrated use of better preparation, compared to 85% of Baseline lessons.
- 69.1% of Midline lessons in the treatment group demonstrated better use of pedagogy compared to 60% at Baseline.
- 84.0% of Midline lessons in the treatment group demonstrated better use of assessment compared to 85% at Baseline.

It is important to note that this is based on whether the practice was observed or not as a yes/no binary was used at Baseline to review all practices. Additionally, it is difficult to place too much weight on these findings given that the baseline only observed a limited number of lessons.

To measure changes in instructional practices between Baseline and Midline, the study will rely on the revised lesson observation tool, which is designed to capture a greater range of scores across items and has been refined to focus on the specific practices that the project seeks to change.

The first domain reviewed is the extent to which teachers demonstrate improved lesson preparation. This is measured through four items at Midline, each on a 3-point scale in line with the rubric shown in the figure following.

- The teacher uses an appropriate and well written lesson plan
- Lesson objectives are clearly displayed at the start of the lesson
- Lesson objectives are clearly explained to the students at the start of the lesson
- The teacher links the lesson to the previous lesson

The rating guidance used by lesson observations for these items is included in the figure following. Lesson observers were trained over 2 days on the tool using a participatory approach and in collaboration with Woreda education officials as well as project and ChildHope staff.

Figure 44. ChildHope/CHADET Lesson Observation Rating Guidance Preparation (2020)

		RATING GUIDANCE		
		1	2	3
PREPARATION				
1.1	The teacher uses an appropriate and well written lesson plan	No Lesson plan was available	A basic lesson plan was available that included lesson objectives, lesson timings and student tasks	A well-written lesson plan was available that included full details of the lesson aims and objectives, lesson timings, students tasks and individual student targets. The lesson plan identified those students with a disability/learning difficulty and how to support them
1.2	Lesson objectives are clearly displayed at the start and throughout the lesson	No lesson objectives were displayed	Lesson objectives were displayed at the start of the lesson, but were removed when the lesson started	Lesson objectives were displayed at the start of the lesson and remained on display throughout the whole lesson
1.3	Lesson objectives are clearly explained to the students at the start of the lesson	There was no explanation or discussion about the lesson objectives	The teacher gave a brief explanation of the lesson objectives stating what the students would be doing in that lesson	The teacher had a full **discussion with the students** about the lesson objectives. The teacher fully explained the objectives, including what the students would be doing and why they would be doing it. The teacher checked the students' understanding of the lesson objectives, and the students proved their understanding
1.4	The teacher links the lesson to the previous lesson	The teacher did not link the lesson to the previous lesson	The teacher told the students how the current lesson links to the previous lesson	The teacher linked the current lesson to the previous one, and explained how it is a progression. The relationship between the current and previous learning outcomes were discussed

To create a single indicator results were averaged. Improved adoption was understood to be scoring between a minimum of a 2.5, suggesting the lesson scored 2-3 on most preparation items.

Based on this approach, at Midline, 46.8% of lessons in the treatment group demonstrated improved preparation, compared to 28.8% in the control group.

This suggests the project has played a role in improving the extent to which teachers have structured lessons around clear objectives, appropriately sequenced the learning, and planned the lesson in advance.

The figure following displays results between the two evaluation groups for each of the four items reviewed.

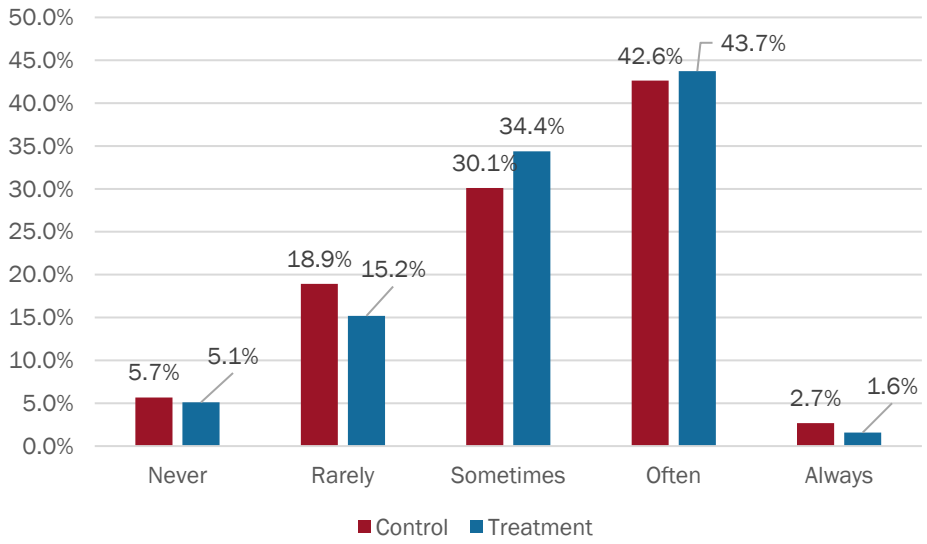
A higher proportion of lessons in the treatment group consistently scored in the highest category for each item (3).

The largest difference between control and treatment was exhibited by the proportion of teachers who displayed lesson objectives at the start of the lesson.

While 55.3% of teachers in the treatment group scored a '3' on this, only 41.1% of teachers in the control group did so.

The study also asked girls how often their teachers present the lesson objectives. Responses are summarized in the figure following. For girls, there were no major differences between the proportion of girls in treatment and control who reported teachers to do this often or always, although a higher proportion of girls in control schools report their teachers do this never or rarely compared to in treatment schools, validating the findings from the lesson observation.

Figure 45. How often does your teacher present what you will do in that lesson at the beginning of the lesson?



For both groups, the lowest performing item was the teachers use of an appropriate and well written lesson plan.

Across items, the smallest proportion of teachers in both groups scored '3' on this: 17.8% of teachers in control schools and 28.7% in treatment schools. The rubric describes a '3' as follows: "A well-written lesson plan was available that included full details of the lesson aims and objectives, lesson timings, students' tasks and individual student targets. The lesson plan identified those students with a disability/learning difficulty and how to support them". From feedback from observers, the element that was most often missing was the specific supports for children with disabilities. This is an area the project should consider targeting in future trainings or through on-going mentorship and coaching.

According to qualitative sessions, teachers prepare weekly and daily lesson plans based on the annual lesson plan.

One teacher said, "We have an annual plan, and from this annual plan there are monthly plans and weekly lesson plans. This changes to daily activity lesson plans."[228]

Another teacher from a discussion group in South Gondar said, "We prepare daily plans based on the annual lesson plan."[229]

A participant from the same focus group discussion in South Gondar, re-iterated this, "We first prepare yearly plans at the end of every year. Based on that yearly plan, we prepare weekly plans, and then we prepare daily plans. The daily plans are prepared today for tomorrow."[230]

[228] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[229] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[230] Ibid.

Other teachers from another discussion said, "I prepare an annual plan and daily plan periodically"[231] and "I take lesson plans from the annual [plan]."[232]

In focus group discussions, teachers say that activities, objectives, and content are key elements of a lesson plan.

When asked what the key elements of the lesson plan were, one teacher said, "as part of the lesson plan, there are different items included such as objectives, contents, teacher's activity, student activity."[233]

For another teacher in a different discussion, these elements were also prioritized, "Objectives, student activity, teacher activity, content, and assessment are the [main] elements."[234]

Other teachers in the same discussion also voiced similar opinions. One teacher said, "Objectives, contents, teacher activities and student activity are the key elements."[235]

Another said, "Objectives and content are the key elements of a lesson plan."[236] In total, four out of six teachers in the discussion mentioned at least one of these elements as being important for lesson planning.

Evidence gathered from qualitative sessions suggests that lack of adequate time and materials are main challenges to preparing lesson plans.

Both participants in one focus group discussion said, "*[The] challenges I mainly face could be a lack of adequate time or lack of education materials*."[237] A teacher from the same district, but in another group discussion said that the main challenge for them was the "*lack of supportive education materials used for lesson planning.*"[238]

One teacher talked about how the lack of a printer in their school made their daily lesson planning much longer. They said, "*It may be tiresome to prepare daily, and we have a lack of materials such as a printer and copies. We write*

[231] FGD with Literacy And Numeracy Teachers Trained By CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[232] Ibid.
[233] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[234] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[235] Ibid.
[236] Ibid.

[237] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[238] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with upper Primary School, Arsi.

the plans by hand every day, but the other schools have their own pre-printed format."[239]

In another focus group discussion, teachers discussed how the lack of materials made their work more time consuming and challenging. One teacher said, "*We prepare the lesson plan papers by ourselves. We draw the lines and write the plans and that is time consuming*."[240]

Another teacher in the same discussion said, "*There are not enough materials. For example, we use a ruler to draw the lines. Sometimes it is a challenge finding that ruler. So, it is better if we can have materials."*[241] In total, four out of six participants raised the issue of a lack of materials as being one of the main challenges to lesson planning.

In qualitative sessions, some teachers report that their lesson planning has changed in the past 12 months, while others report no change.

One teacher said that the way in which they plan their lessons had changed after they started assessing their daily performance, "Yes, there is a change and improvement. I regularly prepare lesson plans and assess my daily performance at the end of the lesson."[242]

Another teacher from a different discussion group also spoke about how feedback from students helped bring about change, "Usually I strive to improve my plan by reviewing my previous plan and taking comments from students."[243]

However, several teachers also reported that there was no change in their lesson planning from the last 12 months. When asked if there were changes, one participant said, "Nothing changed."[244]

A teacher from another discussion group spoke about how their lesson planning formats had always been the same, "Ever since 2006, I have been teaching English. The format which we plan lessons is the same up to now."[245]

This was reiterated in another discussion group where one teacher said, "No. it is the same as last year. Only the dates change. The subject we cover is the same."[246]

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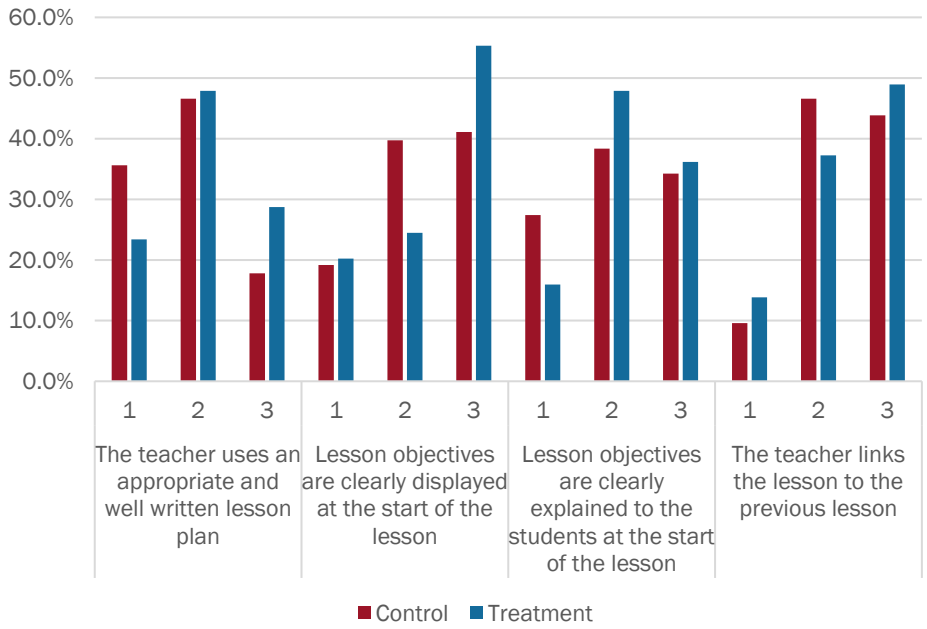
[239] FGD with Literacy And Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[240] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[241] Ibid.
[242] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[243] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with upper Primary School, Arsi.
[244] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[245] FGD with Literacy and Numeracy Teachers Trained By CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[246] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.

Figure 46. Preparation at Midline by Evaluation Group



To assess the extent to which lessons had adopted improved pedagogy, the study reviewed the following items:

- The teacher helps students solve problems
- Students work collaboratively (in pairs or groups)
- Students spend more time on learning tasks than listening to the teacher
- The teacher names individual students to answer questions; not just those who raise their hands
- The teacher asks 'open questions' to test the students' understanding; not just repeating, or saying yes/no
- The teacher supports less advanced students and ensures that the more advanced students have work that 'stretches' them
- The teacher includes all students in the lesson (girls and boys equally)
- Teacher actively tried to involve students who were not participating
- Students ask the teacher questions
- The teacher uses language that is clear, simple, and appropriate to the grade/age level of the students
- The teacher listens attentively to students
- The teacher praises the students
- The teacher checks that the students are making progress against the lesson objectives at least twice throughout the lesson

As with planning, scores were averaged with a 2.5 indicating the adoption of improved pedagogy. The rating guidance used by lesson observers is shown in the figure following.

Figure 47. ChildHope/CHADET Rating Guidance Pedagogy (2020)

Lesson Observation Guidance

		RATING GUIDANCE		
		1	2	3
PEDAGOGY				
2.1	**The teacher helps students solve problems**	The teacher did not help students solve problems **OR** The teacher **told the students the correct answer**	The teacher helped the students solve problems, but **tended to tell the students how to solve them**	The teacher helped the students solve problems by guiding the students to find the correct method and answer themselves
2.2	**Students work collaboratively (in pairs or groups)**	Students did not work collaboratively	Students worked in pairs or groups, but particular students tended to do most of the work	Students worked in pairs or groups and **all** students worked **collaboratively** on tasks/ assignments **OR** Particular students took a lead role in **supporting** the others, who worked collaboratively.
2.3	**Students spend more time on learning tasks than listening to the teacher**	Students spent **over 70%** of the lesson listening to the **teacher talk**	Students spent **approximately 50%** of the lesson listening to the **teacher talk**	Students spend **over 70%** of the lesson on **learning tasks**
2.4	**The teacher named individual students to answer questions; not just those who raise their hands**	The teachers only took answers from those students who raised their hands to answer	The teacher took answers equally from students who raised their hands, and students who the **teacher nominated**, but had not raise their hands	The teacher nominated students who had not raised their hands to answer questions on more occasions than students who had raised their hands **OR** The teacher **ONLY** took answers from students who had raised their hands, when no one else knew the answer

Lesson Observation Guidance

		RATING GUIDANCE		
		1	2	3
PEDAGOGY				
2.5	**The teacher asks 'open' questions to test the students' understanding; not just repeating, or saying yes/no**	The teacher only asked 'closed' questions **OR** The teacher did not ask any questions at all	The teacher asked some 'open' questions, but mainly 'closed' questions	The teacher mainly asked 'open' questions that made the students show they fully understand the subject rather than students just giving the correct answer
2.6	**The teacher supports less advanced students and ensures that the more advanced students have work that 'stretches' them**	The teacher treated all the students the same, regardless of their levels of understanding	The teacher gave all of the students the same work, but supported those less advanced students who were struggling	The teacher gave the students different levels of work appropriate to their level of understanding and supported those students who were less advanced and/or struggling. More advanced students may get more advanced work or additional work after they have finished tasks **OR** The teacher used the more advanced students to support those students who were less advanced and/or struggling
2.7	**The teacher includes all students in the lesson (girls and boys equally)**	The teacher only included about 20% of the students in the lesson **OR** Regardless of how many students were included, the teacher tended to include boys more than girls **OR** The teacher tended to focus only on the same students	The teacher included about 50% of the students **AND** included girls and boys equally	The teacher tried to include most of the students in the lesson **AND** included girls and boys equally

Based on this approach, at Midline, 16.0% of lessons in the treatment group demonstrated improved pedagogy, compared to 5.5% in the control group.

This suggests the project has made improvements between baseline and mid-line given the stark difference between treatment and control. However, there given that a minority of lessons have adopted these practices there is still significant improvements that can be made in this area.

The table below reports scores per item included in the pedagogy domain. In 10 areas assessed for pedagogy, the treatment group outperformed the control group, supporting findings demonstrating that a higher proportion of lessons in treatment schools demonstrate that they have adopted improved instructional practices in pedagogy compared to lessons in control schools. In three of the

areas assessed, the control group outperformed the treatment group in the highest category. This was true for lessons where students spend more time on learning tasks than listening to the teacher, the teacher using language that is clear and easy to understand, and the teacher listening attentively to students. The project should consider working on these areas in particular in future trainings and mentorship activities.

Table 35. Pedagogy by Evaluation Group

Item	Score	Control	Treatment
The teacher helps students solve problems	1	17.8%	13.8%
	2	38.4%	34.0%
	3	43.8%	52.1%
Students work collaboratively (in pairs or groups)	1	37.0%	31.9%
	2	47.9%	43.6%
	3	15.1%	24.5%
Students spend more time on learning tasks than listening to the teacher	1	27.4%	33.0%
	2	43.8%	41.5%
	3	28.8%	25.5%
The teacher names individual students to answer questions; not just those who raise their hands	1	46.6%	33.0%
	2	37.0%	46.8%
	3	16.4%	20.2%
The teacher asks 'open questions' to test the students' understanding; not just repeating, or saying yes/no	1	35.6%	29.8%
	2	37.0%	39.4%
	3	27.4%	30.9%
The teacher supports less advanced students and ensures that the more advanced students have work that 'stretches' them	1	24.7%	33.0%
	2	54.8%	45.7%
	3	20.5%	21.3%
The teacher includes all students in the lesson (girls and boys equally)	1	27.4%	21.3%
	2	42.5%	38.3%
	3	30.1%	40.4%
Teacher actively tried to involve students who were not participating	1	39.7%	27.7%
	2	49.3%	57.4%
	3	11.0%	14.9%
Students ask the teacher questions	1	61.6%	55.3%
	2	30.1%	28.7%
	3	8.2%	16.0%
The teacher uses language that is clear, simple, and appropriate to the grade/age level of the students	1	9.6%	13.8%
	2	20.5%	24.5%
	3	69.9%	61.7%
The teacher listens attentively to students	1	8.2%	8.5%
	2	19.2%	28.7%
	3	72.6%	62.8%
The teacher praises the students	1	32.9%	21.3%
	2	32.9%	39.4%
	3	34.2%	39.4%
The teacher checks that the students are making progress	1	23.3%	24.5%
	2	56.2%	44.7%
	3	20.5%	30.9%

Item	Score	Control	Treatment
against the lesson objectives at least twice throughout the lesson			

The weakest pedagogy area for the treatment group was the proportion of lessons where the teacher actively tried to involve students who were not participating. Only 14% of lessons scored in the highest category for this time. The project should consider how it can support teachers to better engage all students, including those who are not participating.

To understand the role of participation in class in supporting learning, we asked girls the extent to which they agree or disagree with three statements:

- I feel I can participate in all classroom activities.
- I feel comfortable raising my hand to ask questions in class.
- I feel comfortable answering questions in class

These three items were used to create a participation scale.

Feeling capable and comfortable participating in class leads to improvements in English literacy and numeracy.

The extent to which girls felt comfortable and capable of participating in class, as measured through the participation scale, was a statistically significant predictor of numeracy score ($p<0.05$) and English oral reading fluency at midline ($p<0.05$).

This indicates that the project is appropriately supporting girls to participate as this will lead to improvements in learning.

Qualitative evidence suggests differences in the ways boys and girls ask questions in class. One teacher commented "*Boys are usually fast in answering questions regardless if they're right or wrong. But girls are very late to participate and answer questions in class. This may be due to a lack of experience and the existing social influences on girls to speak in front of people*."[1]

This suggests that boys generally may be more willing to risk getting a question wrong than girls.

To assess the extent to which lessons had adopted improved assessment practices, the study reviewed the following four items:

1. The teacher checks that students' learning has progressed since the previous lesson
2. Where the teacher assessed students' work, the teacher told the students how well they performed and what they need to do to improve.

3. The teacher gives a summary at the end of the lesson

4. The teacher links the lesson to the next lesson

Scores were averaged with lessons with average scores of 2.5 or above categorized as having adopted improved assessment practices. The rating guidance used to assess lessons for assessment practices is shown in the figure following.

Figure 48. ChildHope/CHADET Rating Guidance Assessment (2020)

Lesson Observation Guidance

		RATING GUIDANCE		
		1	2	3
ASSESSMENT				
3.1	**Where the teacher assessed students' work, the teacher told the students how well they performed and what they need to do to improve.**	The teacher did not assess any students' work	The teacher assessed students' work, but only told them what they had correct or incorrect	The teacher assessed the students work and told them exactly what they had correct and incorrect. Where the students had work that was incorrect, the teacher worked with the student to identify exactly why the work was incorrect, and exactly what the student needs to do/improve to make the work correct
3.2	**The teacher gives a summary at the end of the lesson**	The teacher did not give a summary at the end of the lesson	The teacher gave a brief summary at the end of the lesson explaining what the students had done	The teacher gave a full summary at the end of the lesson, linking to the lesson objectives, and what the students had done to achieve those objectives
3.3	**The teacher checks that students' learning has progressed since the previous lesson**	The teacher did not check that the students learning has progressed since the previous lesson	The teacher used good questioning to check that the students understood the information taught in that lesson	The teacher used good questioning to check that the students understood the subject taught in that lesson **AND** checked that they understood how the new information linked to the subject taught in the previous lesson and how it had progressed
3.4	**The teacher links the lesson to the next lesson**	The teacher did not link the lesson to the next lesson	The teacher told the student what they would be doing in the next lesson	The teacher explained to the students what they would be learning in the next lesson, and how it relates to the lesson that has just finished

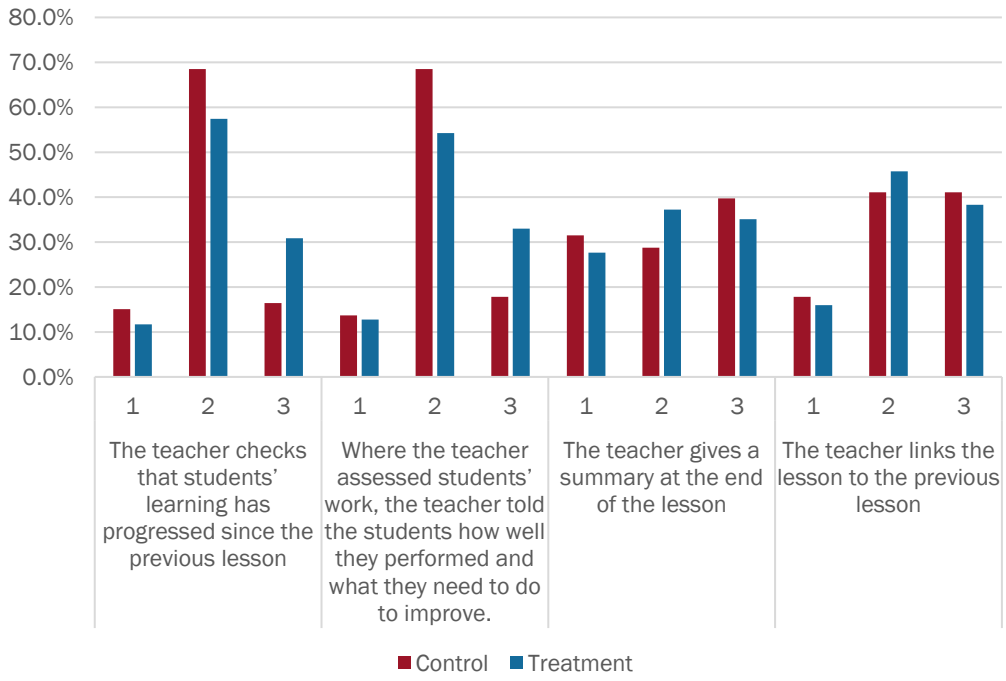
By Midline, 38.3% of lessons in the treatment group had adopted improved assessment practices compared to 34.2% in control.

The figure following displays results per item for both evaluation groups.

A higher proportion of lessons in treatment schools have teachers who check that student learning has progressed since the last lesson and have teachers who assess students work and provide formative feedback. A higher proportion of lessons in control schools have teachers who give a summary at the end of the lesson and link to the next lesson.

In the treatment group the lowest performing area was the teacher giving a summary at the end of the lesson. The project should consider how it can better support teachers to do this.

Figure 49. Assessment Practices by Evaluation Group



According to focus group discussions, teachers report assessing the level of their students frequently.

When teachers were asked how often they assessed their students, one teacher said, "I assess them daily. They will have questions after every topic as class-work or something else. Then at the end of every class, I ask summary questions."[247]

Another teacher in the same discussion group also added that their students were assessed daily, "Students are assessed in every step of the 40 minutes we spend in class. They are assessed at the beginning and in the middle by making them do questions at the end of the class."[248]

Other teachers reported that they assessed their students with exercises given daily, "I evaluate when I finish the unit and also with the exercises I give them every day."[249] One other teacher in another discussion also said that they gave their students exercises in class, "Most of the time I try to assess by asking general questions and exercises in the class."[250]

[247] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[248] Ibid.
[249] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[250] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.

As evident from qualitative sessions, all teachers interviewed agreed that it was important to assess students frequently.

Across all focus group discussions, teachers unanimously voiced their favour for assessing students frequently. One teacher explained why they did so, "It is important because it helps us know the students and makes them competent."[251]

Another teacher from a different discussion said that doing so was important in order to track any changes, "It is relevant. I divide my students into 3; higher, mediocre, and lower. When I keep evaluating them, I see their change."[252]

One teacher explained that assessing students was important to know if they were learning in the class, "Students' evaluation is crucial. We need to know whether they are capturing the intended knowledge, and we can know that based on their results."[253]

In one discussion group, a teacher spoke about how assessing students was part of their prepared lesson plan, "[The] assessment of students is usually a main part of the lesson plan. When we prepare our lesson plan, we incorporate the ways and methods of assessment. This helps the student's expectations, in order to prepare themselves for assessment in each lesson."[254]

Qualitative evidence suggests that some teachers had changed the frequency in which they assessed students in the past 12 months, while others did not.

During a focus group discussion in the South Wollo district, all participants except for one said that there had been no change in the frequency in which they assessed students in the past year. One teacher who supported this said, "*No. There is no change since there is no change in the system*."[255]

Another teacher in the same discussion group attributed this absence of change to a lack of training, "*No change at all. Not only on the frequency but also on the way the students are assessed. There is no training for us to sharpen our skills.*"[256]

A teacher from another discussion group, but from the same district, also said that there was no change but took personal responsibility for this, "*There is no*

[251] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[252] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[253] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S, South Wollo.
[254] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Upper Primary School, Arsi.
[255] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[256] Ibid.

change. I think the weakness emanates from me. We as teachers must do a bit of research on how to do that well."[257]

In contrast, teachers from other districts such as South Gondar reported change in the frequency of assessment. One teacher said, "*Yes it has changed. Previously for example we used to assess students in group work, but it does not help us to know an individual's capacity. Now we assess students individually.*"[258]

A teacher from the Arsi district, also said they had changed the frequency of assessment, "*It is changed. I improved the frequency of assessing student in the classroom. I noticed that improving the frequency of the assessment changes students' participation and performance."*[259]

Teachers report that limited time is the main barrier towards assessing students regularly.

In a focus group discussion in South Gondar, all teachers agreed that time was the main barrier towards assessing students regularly. For example, one teacher said, "The main challenge is time. We do not have enough time to assess and cover the books which have many pages."[260]

Another teacher in the same group said, "The time is short, and we cannot assess 50-65 students within 40 minutes."*[261]*

Similarly, in other districts, teachers said their main challenge was a "lack of time."[262] However, this same participant also expressed that this had changed in the past 12 months, "Somehow there are changes. Governments have revised the systems and structures. There are changes in test and exams."[263]

A teacher from South Wollo further explained how a lack of time was a significant barrier to regular assessments, "Time is a constraint. We want to do the assessment every day, but we fail to leave out 5 minutes as the teaching takes most of the time. The student's ability stays the same every year. They stay higher, middle, and lower. We could have assessed the day to day, weekly or monthly performance, but 40 minutes is not enough to indulge in that kind of activity."*[264]*

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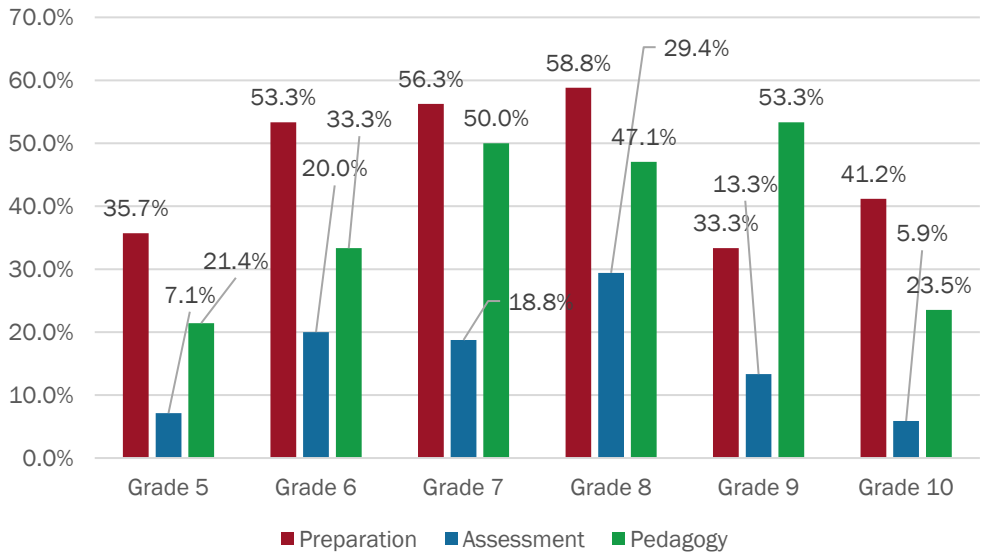
[257] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[258] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[259] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Upper Primary School, Arsi.
[260] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[261] Ibid.
[262] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[263] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[264] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.

The figure following reports overall results by grade level observed for the treatment group.

In all grade levels except grade 9, the highest competency observed is preparation, followed by pedagogy, followed by assessment. Assessment practices appear to increase in primary school with grade level and then decrease in secondary school with each successive grade level. Grade 10 and Grade 5 teachers both need additional support implementing assessment practices in schools: only 5.9% of lessons in Grade 10 do so and only 7.1% of lessons in Grade 5 do so.

Figure 50. Performance Across Domains by Grade (Treatment Only)



In qualitative sessions, girls report that teachers helped in improving their literacy skills.

During these discussions, girls said that one of the reasons why her reading skills improved in her local language was because of the support she had received from her teachers. One girl stated, “teachers helped while teaching class, teachers helped us by giving notes, asking to read in the class, and by giving us advice on the importance of reading for our future dreams and goals.”[265]

Another student from a different discussion said her local language skills changed from the previous year because, “My teachers helped me by teaching and explaining what I do not understand.”[266]

One girl explained how her teacher encouraged the students in class to further their reading skills, “My teachers encourage us to study and read by giving us

[265] FGD with Girls on Learning in Lower Secondary School, Arsi
[266] FGD with Girls on Learning, Web Amba, South Gondar.

prizes when we score good results. That motivates us to read more and develop our reading skills."[267]

Girls also said that their skills in English improved from the previous year thanks to "asking teachers for help during class." [268]

To measure the extent to which lessons demonstrate gender-sensitive teaching, we constructed two gender ratios based on how often teachers asked a different boy or girl a question and how many times a different boy or girl asked the teacher a question. This proxy measure can be used to represent how gender-sensitive the lesson is. In a gender sensitive lesson, one would expect a 1:1 ratio or a girl-positive ratio. Both ratios were averaged with lessons that were equal or girl-positive classified as gender sensitive. Results for the treatment and control groups at Midline re shown below.

Results were largely comparable between the treatment and control groups. By Midline 57.6% of lessons in treatment schools exhibit gender-sensitive teaching practices compared to 58.3% in control schools.

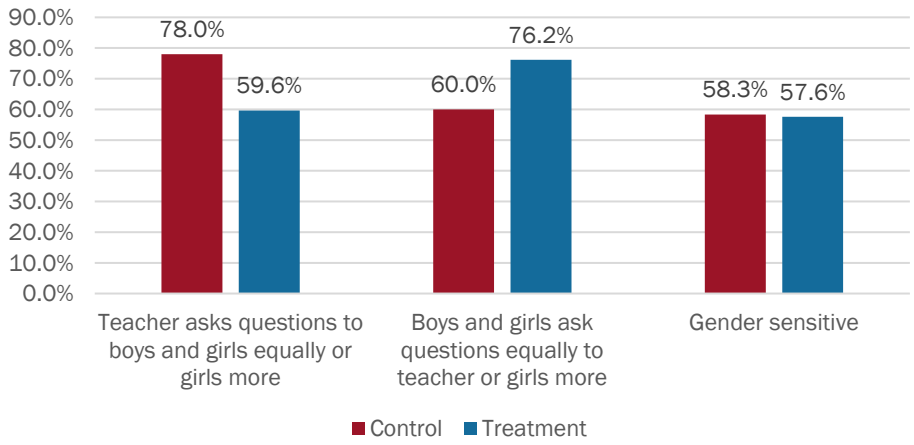
A larger proportion of lessons in control schools had teachers who asked questions equally to boys and girls or more to girls than in treatment schools: 78% compared to 59.6%. However, a larger proportion of lessons in treatment schools had lessons where boys and girls asked questions equally or girls asked questions more: 76.2%.

One possible explanation for this may be that in treatment schools, where more girls or an equal number are asking questions to the teacher, teachers are asking more questions to boys to try and engage them in the discussion. The educational reason for asking questions, is to assess and embed students' understanding. If girls are asking the teacher questions, this may have the same or more benefit than the teacher asking the question, therefore, eliminating the need for the teacher to ask that student a question.

A linear regression using sex as a predictor of each of the ratios was non-significant, suggesting that a teacher's sex does not result in them being more or less gender-sensitive based on these measures.

[267] FGD with Girls on Learning, Tewodross, South Gondar.
[268] FGD with Girls on Learning, Web Amba, South Gondar.

Figure 51. Gender-sensitive Lessons by Evaluation Group



Across focus group interviews, teachers said that they received training from CHADET on methods of teaching in languages and mathematics. For example, one teacher said, "We received training from CHADET on the methods of teaching in the Amharic, Math, and English subjects. We were trained on how to teach different grades."[269]

Another teacher from a different group discussion said, "I had received different trainings organized by CHADET. Training on Numeracy and Literacy."[270]

One teacher spoke about the different teaching methods they learned during their training, "I participated on the training given by teachers who trained in Addis Abeba by CHADET. I learned how to motivate students, apply the teaching method called 'I do, we do, you do'."[271]

A participant in the same discussion group also spoke about the new teaching methods they learned, "I also received a training from CHADET at the beginning of this year. Especially the 3P's teaching method is useful. First, I present, practice then produce using direct approach."[272]

Qualitative evidence suggests that CHADET training taught teachers new ways to interact with students that they did not know before.

Several teachers in focus group discussions said that the CHADET training was beneficial in showing them new teaching methods to interact and support

[269] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[270] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with upper Primary School, Arsi.
[271] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[272] Ibid.

students. For instance, one teacher said, "*It was very helpful and benefited me in improving my interaction with students in the class.*"[273]

One teacher spoke about they learned new ways to teach maths, "*The training gave me a good chance to learn new ways of teaching maths. They showed me a new way of adding fractions that is so easy for all students.*"[274]

Other teachers said they learned new ways to be more inclusive with students who learn at a different pace. For example, "*CHADET guides us on how to involve the students with lesser understanding, which is, to be frank, forgotten by the government*."[275]

Another teacher said they learned how to specifically support girls, "*Though there is nothing new I didn't already know, the training helped me to change my focus and showed me how to support girls.*"[276]

In focus group discussions, teachers recommend that they get more training on specific teaching methodologies.

One participant said, "I wish I had subject wise trainings and methodology training."[277]

Another teacher spoke about wanting to learn how to accommodate students at all learning levels, "*We need more training on teaching- learning methodology. We have so many students with different behaviours. To accommodate all that, if we could be equipped with various methodologies, we can try them all until we find something that fits.*"[278]

A teacher from the same discussion group re-iterated this need for more training on methodologies, "*I also think training is needed on methodologies. The trainers also must be changed from time to time. It feels redundant to be trained by the same trainers over and over again. There is a common problem of methodology on every teacher. Students change year to year, and we need to adapt to new teaching methods.*"[279]

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[273] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Upper Primary School, Arsi.
[274] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[275] FGD with Literacy And Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[276] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[277] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[278] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[279] Ibid.

One teacher from a different discussion spoke about how they wanted to help with improving students 'scores, "*There are students with low scores. I want to know how to make them able to get higher marks."*[280]

Teachers report several changes after the training received from CHADET.

During discussions, one teacher said, "There are changes, in preparing lesson plan, how to help students in the classes, how to assess level of students through different mechanisms."[281]

Another participant spoke about how they started to pay more attention to students who were not active in class, "As I said before, we became more attentive of passive students."[282]

A teacher from a discussion group in South Wollo said, "I practised on how to help students with lower grades."[283]

One teacher from the same discussion group in South Wollo discussed how they became more conscious of students with disabilities after the training, "I learned how children with disabilities behave. I applied a new teaching style and used the activity diagram model."[284]

Teachers also spoke about how they adopted new teaching methods that they learned from the CHADET training, "The change is that I am using the 'I do, we do, and you do' method effectively."[285]

Qualitative sessions suggest that teachers do not think that their school is well equipped for students with disabilities.

One teacher spoke about the lack of important materials and skills to teach students with disabilities, "I do not think our school is convenient for disabled students. To support and teach the disabled, we have to have materials, the knowledge, and skills necessary to teach the students. But these things do not exist in our school."[286]

Another participant in the same discussion group said, "It is not convenient [for students with disabilities]. Some situations in the school are not convenient

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[281] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[282] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[283] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[284] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[285] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[286] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.

even for normal students."[287] Four out of the five participants in the focus group discussion held similar views.

A teacher from another discussion explained how their school lacked all necessities to deal with the varied disabilities that could afflict students, "I do not think the school has the material or the setting to teach them. The school compound has no ramp for the physically disabled, there are no braille handouts for the visually impaired, no listening material for the hearing impaired…there is much more work to do for these students."[288]

In another discussion group in South Wollo, all participants together said, "It [the school] is not comfortable for students with disability."[289]

The majority of teachers in group discussions report that few adaptations have been made to teach students with disabilities.

When asked if any adaptations had been made to teach students with disabilities, one teacher said, "There are no special adaptations made to teach them or to provide them with lessons. The few things teachers did were to encourage them to keep following the lessons and give them first place in participation."[290]

When speaking specifically about adaptations for students with visual impairments, a teacher in the same discussion said, "Nothing so far. There is a visually impaired student in my class and he just comes to class and sits. He does not have braille nor is he supported by your program."[291]

Another teacher in a different discussion said, "Nothing so far. The school lacks facilities…The school has no water, let alone material for students with disabilities."[292]

However, during these discussions, teachers spoke about the help they need to include students with disabilities in the classroom. For instance, one teacher said," We have to get trainings on the methods of teaching for impaired or disabled students. For example, for students that cannot hear, we have to know sign language, and for those who cannot see, we have to know, and they have to get braille."[293]

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[287] Ibid.
[288] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[289] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[290] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Upper Primary School, Arsi.
[291] Ibid.
[292] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo.
[293] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.

Another teacher in a different discussion said, “We need more training on how to teach special classes and also how to conduct successful inclusive learning.”[294]

Only one participant in these interviews said that they had already made a few adaptations to include children with disabilities, “Yes, there are a few adaptations made for one girl with visual impairments. We have provided her with audio recording materials that help her to record lessons in the classroom. The other thing we have done is provided her with a stick to help her walk.”[295]

Teachers find that the lack of training and support are the major challenges they face with teaching students with disabilities.

When asked what some were of the challenges teachers faced with teaching students with disabilities, one participant said, “[The] lack of training for teachers to teach such students.”[296]

A teacher from another discussion spoke about how they could not help a student with an intellectual impairment due to a lack of skills, “We do not have the training to help and support disabled students. We treat them using the experience we had in the past. There are students that are not even supported. For example, there is one student who repeated a class level for three years… We couldn’t help him because we do not have the skills.”[297]

Another participant from the same discussion re-iterated this comment, “The first is the inconvenience of the school, the second is the lack of training, and the third challenge is that we do not have enough knowledge to support and teach them.”[298]

Some teachers suggested ways in which these challenges could be overcome. One said, “As we implied, training on special needs, involving Woreda officials to assist with facilities. We can’t solve this on our own.”[299] Another said, “They [students with disabilities] also need psychological counsellors to further help them cope to tackle lower self-esteem.”[300]

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[294] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or Directly by CHADET in P.S, South Wollo.
[295] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[296] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET with Teachers of Lower Secondary School, Arsi.
[297] FGD with Literacy and Numeracy Trained by CHADET, South Gondar.
[298] Ibid.
[299] FGD with Literacy and Numeracy Teachers Trained by CHADET Teachers or by CHADET Directly in S.S., South Wollo
[300] Ibid.

6.3 Life Skills

The project aims to improve girls' self-esteem and self-efficacy through several activities. These include:

- Organizing Good Brothers Clubs with Boys to create healthy and supportive peer environment
- Establishing girls' clubs where the project delivers a robust life skills curriculum
- Support girls' movement: reporting & addressing violence & abuse (letter-link), boys & girls' clubs, life-skills & disability awareness
- Involve parents in supporting girls' education through family hubs
- Improving girls' ability to transition, their agency, and subsequently their self-esteem and self-efficacy
- Improving girls' learning through various activities subsequently improving their academic self-efficacy and self-esteem
- Specific targeted interventions in Girls' Clubs to strengthen girls' life skills
- Gender-sensitive teaching practices in schools ensure the teaching and learning environment is supportive

Performance against logframe indicator targets for this intermediate outcome is shown in the table following.

Table 36: Intermediate outcome indicators as per the logframe

IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will IO indicator be used for next evaluation point? (Y/N)
% of girls who improve their self esteem	N/A	N/A	N/A[301]	N/A. No target as girls cannot improve since self-esteem was not measured at BL. At ML 21.8% of girls have high self-esteem.	TBC	Yes
% of girls who improve their self-efficacy	N/A	N/A	N/A[302]	N/A. No target as girls cannot improve since self-efficacy was not measured at BL. At ML 90.2% of girls have high self-esteem.	TBC	

[301] As there is no starting point as self-esteem was not measured at midline, girls cannot improve their self-esteem between baseline and midline
[302] As there is no starting point as self-efficacy was not measured at midline, girls cannot improve their self-efficacy between baseline and midline

IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will IO indicator be used for next evaluation point? (Y/N)
Main qualitative findings						
• TBC						

Self-esteem is measured through the internationally validated Rosenberg Self-Esteem Scale[303]. This scale is comprised of 10 items measuring both positive and negative feelings about the self. To calculate a mean self-esteem score, each of these agree-disagree items are averaged.

Self-esteem (also known as self-worth) refers to the extent to which we like accept or approve of ourselves, or how much we value ourselves. Self-esteem always involves a degree of evaluation and we may have either a positive or a negative view of ourselves.

When a person's ideal self and actual experience are consistent or very similar, a state of congruence exists, which is an important basis for the development of self-esteem. The development of congruence is dependent on the positive regard that we receive from our social context. This includes:

1. The ways in which others (particularly significant others) react to us.
2. How we think we compare to others
3. Our social roles
4. The extent to which we identify with other people

As self-esteem was not measured at Baseline, we cannot report on the indicator "% of girls who improved their self-esteem" at Midline. Instead, this section discusses the proportion of girls who have high and low self-esteem and the extent to which project activities and specific barriers and characteristics influence self-esteem at Midline. We also assess linkages between self-esteem and other life skills and constructs measured at Midline.

To create self-esteem groups, we categorized girls with mean self-esteem scores of 4 or greater as having high self-esteem, girls with mean scores between 3 and 4 and having average self-esteem and girls with scores 3 or less as having low self-esteem.

In the treatment group 21.8% of girls have high self-esteem, 65.3% have average self-esteem, and 12.9% have low self-esteem.

[303] C.f. Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

In the control group, 19.1% of girls have high self-esteem, 64.5% have average self-esteem and 16.3% have low self-esteem.

Comparisons of means finds that there is a statistically significant difference in mean self-esteem between the treatment and control group. Girls in the treatment group have higher average self-esteem than girls in the control group at Midline.

To understand what activities contributed to self-esteem levels at Midline, we conducted a series of linear regression models, using membership and participation in these activities to predict mean self-esteem levels. Results are summarized in the table following.

Table 37. Influence of Project Activities on Self-Esteem at ML

Participation in project activity / reached by project activity	Proportion of girls in activity/ reached by project	Significant predictor of self-esteem level at ML?	Beta & R^2 (if significant)
Made use of reading corner	49.4%	Not sig.	N/A
Member of Girls Club	46.8%	Not sig.	N/A
Received support to cover registration fees for secondary school (of secondary girls)	25.4%	Not sig.	N/A
Received free school uniform	56.9%	Not sig.	N/A
Attended homework tutorials	81.4%	$p<0.05$*	Beta=0.123 R^2=0.011
Attended secondary school summer transition camp (of secondary girls)	29.6%	Not sig.	N/A
Access sanitary corners (of girls over 11 who started menstruating)	64.3%	Not sig.	N/A

Most project related variables did not have a direct visible impact on self-esteem levels at Midline at statistically significant levels.

However, having attended homework tutorials was a statistically significant predictor of girls' self-esteem levels at Midline.

This suggests that attending homework tutorials helps strengthen girls' self-esteem. Given that most girls in the treatment group attend homework tutorials: 81.4% this activity is likely to support the project to deliver improvements in girls self-esteem by Endline.

From the theoretical basis for self-esteem, it is likely that HW tutorials provide a social context through which girls perceive the positive regard of their peers and the tutorial facilitator, have empowered social roles within the group, and are able to identify with other members of the tutorial in a positive way.

The study also ran a series of regressions including each barrier and characteristic examined to assess whether these influence girls' self-esteem at Midline.

Being married or living with a man as if married has a negative effect on self-esteem, according to linear modelling, at statistically significant levels.

This predicts girls' having lower self-esteem means (Beta=-0.373) at Midline and explains 1.8% of variance in the data (R square=0.018). The project should consider how it can support girls who are married to strengthen their self-esteem between Midline and Endline given that this will likely hamper project efforts.

Living in a household that is facing extreme hardship has a negative effect on self-esteem at statistically significant levels, according to similar regression model.

This predicts girls scoring less on self-esteem (Beta=-0.187) at Midline with the model explaining 3.5% of variance in the data (R square=0.035). The project should consider how it can provide differentiated treatment to this group of girls to also support them to improve their self-esteem between Midline and Endline.

Several safety related barriers had a negative effect on girls' self-esteem at Midline according to linear modelling. This model explained 6.3% of the variance in the data (R square =0.063). Predictors which had a negative effect on self-esteem included:

- Traveling an hour to get to school ($p<0.05$; Beta=-0.162)
- Not feeling traveling to school ($p<0.05$; Beta=-0.167)
- Not feeling safe at school ($p<0.05$; Beta==0.245)
- Being physically punished by the teacher in the past week ($p<0.05$; Beta=-0.197)

These findings validate a central project assumption, namely that feeling safe has a direct positive effect on girls' self-esteem. The project should continue to address these barriers to support self-esteem improvements between Midline and Endline.

When a person's ideal self and actual experience are consistent or very similar, a state of congruence exists, which is an important basis for the development of self-esteem. The development of congruence is dependent on the positive regard that we receive from our social context[304]. There were several barriers relating to a girls' social context which had a negative effect on self-esteem at Midline.

This model was able to explain 11.3% of variance in the data (R square=0.113).

The barriers with a statistically significant negative effect were:

- Girl is currently bullied ($p<0.05$; Beta=-0.222)
- Girl is often lonely at school ($p<0.05$; Beta=-0.294)

At midline 9.2% of girls are currently being bullied and 25.7% often feel lonely at school.

[304] Self-esteem is determined by one's views of their ideal self, their of actual self, and the 'positive regard' received from social context. Positive regard is driven by (1) the ways in which others, particularly significant others react to us, (2) how we think we compare to others, (3) our social roles, (4) the extent to which we identify with other people.

Given the high prevalence of these barriers and the negative effect they have on self-esteem, the project should consider how it can use homework tutorials and girls clubs to build friendships and relationships that can provide social support between girls, particularly if they are being bullied.

Being a member of a Girls' Club reduces the extent to which girls feel lonely at school.

A logistic regression finds that being a member of a Girls' Club is a statistically significant predictor of not feeling lonely often at school ($p<0.05$). This makes sense as girls' in clubs are likely to develop and build friendships from these clubs. It is likely that given the relationship between loneliness and self-esteem and the fact that self-esteem is derived from one's social context, girls' clubs will eventually lead to improvements in self-esteem if they continue to support girls to make friends.

Several sexual and reproductive health barriers were found to influence self-esteem negatively. This model was able to explain 12.7% of variance in the data. The barriers were:

- Girl finds it hard to access sanitary pads ($p<0.05$; Beta=-0.143)
- Girl does not know modern method of contraception ($p<0.05$; Beta=-0.272)
- Girl is not able to get a condom if they wanted one ($p<0.05$; Beta=00.100)

Having a teacher often absent from class or having a girl believe that the teacher treats girls and boys unequally has a negative effect on self-esteem. This supports a core project assumption that the teaching and learning environment, and specifically having a gender-sensitive environment has an influence on girls' self-esteem.

Several home environment related variables were also found to have a negative effect oneself esteem at midline:

- Having chores which girls' report make it hard to do schoolwork ($p<0.05$; Beta=-0.121)

- Not being able to choose whether to stay in school and having to accept what is decided for her ($P<0.05$; Beta=-0.148)

This suggests that girls' agency plays a role in influencing their self-esteem. The project should consider how it can support parents to provide environments where girls are given more independence.

To measure girls' academic self-efficacy the study relied on the Perceived Competence Scale for learning[305]. This scale is comprised of three agree-disagree Likert scale items through which girls' rate how confident they feel in their ability to learn and perform in school. To obtain a mean score the items were averaged.

[305] Williams, Freedman, & Deci, 1998

To create academic self-efficacy groups, we categorized girls with mean academic self-efficacy scores of 4 or greater as having high academic self-efficacy, girls with mean scores between 3 and 4 and having average academic self-efficacy and girls with scores 3 or less as having academic self-efficacy.

Academic self-efficacy was not measured at Baseline and therefore we cannot report on the indicator of the proportion of girls who improved their academic self-efficacy.

90.2% of girls at Midline in the treatment group have high academic self-efficacy, 6.0% have average academic self-efficacy, and 3.8% have low academic self-efficacy.

In the control group, 81.9% have high academic self-efficacy, 10.5% have average academic self-efficacy, and 7.6% have low academic self-efficacy. Mean academic self-efficacy is different at statistically significant levels between the treatment and control groups with girls in the treatment group having higher mean scores at midline ($p<0.05$).

We examined the relationships between various project activities and academic self-efficacy. Results are summarized in the table following.

Table 38. Influence of Project Activities on Academic Self-Efficacy at ML

Participation in project activity / reached by project activity	Proportion of girls in activity/ reached by project	Significant predictor of academic self-efficacy level at ML?	Beta & R^2 (if significant)
Made use of reading corner	49.4%	Not sig.	N/A
Member of Girls Club	46.8%	P<0.05	Beta=0.142; R Square =0.062
Received support to cover registration fees for secondary school (of secondary girls)	25.4%	Not sig.	N/A
Received free school uniform	56.9%	P<0.05	Beta=0.161; R Square =0.062
Attended homework tutorials	81.4%	Not sig.	N/A
Attended secondary school summer transition camp (of secondary girls)	29.6%	Not sig.	N/A
Access sanitary corners (of girls over 11 who started menstruating)	64.3%	Not sig.	N/A

Being a member of a Girls Club is a statistically significant predictor of academic self-efficacy at statistically significant levels. This suggests that Girls' Clubs support girls to have higher self-perceptions of their capabilities to learn and perform in school and this is likely to lead to self-esteem improvements between Midline and Endline.

Having received a school uniform from CHADET is a statistically significant predictor of academic self-efficacy at statistically significant levels. This suggests that being given a school uniform supports girl to feel confident in their academic abilities.

With regards to key sub-groups. Living in a female headed household was a statistically significant predictor of academic self-efficacy ($p<0.05$). This suggests that female-headed households may be better at supporting girls to feel capable in their academic abilities. This may be due to the fact that girls in female headed households have a female household head to look up to.

Not having a head of household who can speak the language of instruction has a negative effect on a girls' academic self-efficacy at statistically significant levels. This may be because the head of household is unable to offer support to the girl or communicate with the child's school stakeholders, and therefore is unable to encourage her or nurture perceptions of her own capabilities.

Not using the toilet at school has a negative effect on a girls' academic self-efficacy.

This may be because girls would find it uncomfortable and hard to concentrate if they need to go to the toilet but can't use these facilities and this could lead to them skipping class or going elsewhere to use the toilet, thus influencing their academic self-efficacy.

Several home environment related barriers were found to negatively predict academic self-efficacy, at statistically significant levels. The model was able to explain 3.8% of variance in the data (R square = 0.038). The barriers included:

- Having a high chore burden (Beta=-0.137; $p<0.05$)
- Reporting that chores make it difficult to do school work (Beta=-0.144; $p<0.05$)
- Girl reporting that she does not get enough support from her family to stay in and perform well in school (Beta=-0.157; $p<0.05$)
- Girl reports not being able to choose whether to stay in school and having to accept what is decided for her ($p<-0.102$)

The project should consider how it can target outreach activities with parents to address these barriers so as to ensure they do not hamper project efforts to support girls to improve their academic self-efficacy.

Project activities already targeting the high chore-burden of girls are well-targeted based on the findings relating to this barrier.

To understand the role life skills, have in predicting attendance and learning, we conducted a series of linear regressions using self-esteem and self-efficacy as predictors of learning and attendance. Results are summarized in the table following.

Table 39. Relationships between Life Skills targeted, Learning, and Attendance (Treatment Group Only)

Life Skill (Predictor)	Numeracy at Midline	English Literacy Aggregate Score at Midline	English Literacy ORF (wpm) at Midline	Local Language Literacy Aggregate Score at Midline	Local Language Literacy ORF (wpm) at Midline	Attendance improvements between periods
Self-esteem	p<0.05; Beta=5.916; R Square =0.009	p<0.05; Beta=6.336; R Square =0.012	p<0.05; Beta=13.76; R Square =0.022	p<0.05; Beta=7.214; R Square =0.026	p<0.05; Beta=12.17; R Square =0.018	Non-significant
Academic Self-efficacy	Non-significant	p<0.05; Beta=5.389; R Square =0.015	p<0.05; Beta=9.154; R Square =0.016	p<0.05; Beta=2.821; R Square =0.007	p<0.05; Beta=5.002; R Square =0.005	Non-significant

Findings strongly support project assumptions with self-esteem being a statistically significant predictor of numeracy, English language literacy aggregate score, English oral reading fluency, local language literacy aggregate score, and local language literacy oral reading fluency. This suggests the project is appropriately targeting self-esteem and self-esteem improvements may bolster learning improvements between Midline and Endline.

Similarly, academic self-efficacy was a statistically significant predictor of English literacy aggregate score, English oral reading fluency, local language aggregate score, and local language oral reading fluency. This suggests that supporting girls to feel capable of learning and achieving in school bolsters' their learning and that academic self-efficacy is an appropriate indicator to target by the project.

Chapter 6:

Conclusions and Recommendations

7. Conclusions & Recommendations

7.1 Conclusions

7.1.1 What impact did the project have on the learning and transition of marginalized girls?

The project had a statistically significant impact on numeracy outcomes between Baseline and Midline, based on the cross-sectional difference-in-difference model. The project therefore successfully delivered improvements to girls' numeracy over and above improvements experienced by girls in the control group.

Girls in the treatment group outperformed girls in the control group in all grades with regards to meeting expected numeracy curriculum competencies, further supporting evidence of the project's impact on numeracy.

However, only a minority of girls' meet curriculum expectations in numeracy in all grade levels, suggesting that the numeracy curriculum does not meet girls at their current level and that teachers struggle to deliver to the curriculum in the way it was designed.

Girls who were in grade 8 at Baseline, experienced the greatest average improvement in numeracy outcomes between Baseline and Midline, suggesting these girls benefited most from project activities between periods.

As these girls have since transitioned to secondary school, this indicates that the project was particularly able to support girls' numeracy improvements despite a confluence of changes taking place, including the advent of adolescence and having new teachers and peers.

Due to the absence of literacy data from Baseline, it is not possible to conclusively evaluate the project's impact on either English literacy or local language

literacy[306]. However, some evidence at Midline suggests the project has influenced literacy improvements between periods.

Logistic regressions using evaluation status to predict oral reading fluency levels find that treatment is a statistically significant predictor of higher levels of both English oral reading fluency and local language oral reading fluency. In qualitative sessions girls also report that homework tutorials have enabled them to improve their literacy through re-teaching of core concepts and access to additional reading materials.

At Endline, the study will assess the extent to which the project has had an impact on literacy improvements, but findings from Midline suggest that it may have already influenced these outcomes.

In terms of transitions, there were no significant differences between treatment and control schools in transition rates, although this is likely the result of the way the sample was taken due to data limitations inherited from Baseline, particularly the inability to track participants (See Limitations).

7.1.2 What works to facilitate the learning and transition of marginalized girls?

Several factors were found to support girls' learning in numeracy and English and local language literacy. These factors likely led to the project's impact in numeracy between Baseline and Midline.

Participating in Homework Tutorials leads to higher levels of English oral reading fluency, local language oral reading fluency, and numeracy at Midline according to linear models. Both teachers and girls report similar results of participation in homework clubs in qualitative sessions validating this finding. Homework Clubs provide an extended learning opportunity for marginalized girls and given that 81.4% of project beneficiaries are in Homework Clubs, this activity likely will continue to drive improvements and impact in learning between Midline and Endline.

Supporting girls to feel capable and comfortable participating in class is a statistically significant predictor of English oral reading fluency and numeracy at Midline. Several activities were found to promote girls' perceived capacity to participate in class including Girls' Clubs and Homework Tutorials. These findings suggest that through improving girls' ability to participate in class, these activities will drive improvements in learning and may have contributed to the project's impact on numeracy.

SRH activities that aim to reduce early pregnancies will prove to have a significant impact on the project. Likely, improving inclusive teaching practices will

[306] Local language literacy refers to either Amharic or Afaan Oromo depending on the region as the project targets different regions with different majority languages

also ensure that more disabled children can successfully transition. Girls who have a power to make their own decisions are also likely to transition, suggesting that interventions that target improving the autonomy of girls in school and at home will be the most impactful. The project includes these such as those aiming to reduce chores at home, though autonomy skills may be incorporated more systematically in the life skills package offered.

Self-esteem at midline was a statistically significant predictor of numeracy, English oral reading fluency, English aggregate score, local language oral reading fluency, and local language aggregate score. This suggests that improvements in self-esteem will support improvements in learning.

Academic self-efficacy was a statistically significant predictor of English aggregate score, English oral reading fluency, local language oral reading fluency, and local language aggregate score at midline. Improvements in academic self-efficacy are likely to drive improvements in literacy learning based on these findings.

Several home environments factors around parental engagement were shown to support learning. Parental attitudes towards girls' education are a statistically significant predictor of local language oral reading fluency and local language aggregate score at Midline. When parents are supportive of girls' education, this leads to higher levels of local language literacy. Additionally, having an adult at home help a girl with homework is a statistically significant predictor of English aggregate score and numeracy at midline and having an adult at home to ask a child about what they do in school is a statistically significant predictor of local language aggregate score, and local language oral reading fluency. These findings suggest that parental attitudes and parental engagement supports girls to learn in school.

7.1.3 Was the project successfully designed and implemented?

To understand whether the project was successfully designed and implemented, we reviewed the extent to which the project delivered on its intermediate outcomes, and the extent to which project outputs designed to influence these outcomes played a role in these changes.

With regards to attendance, project girls started the GEC-T phase with high mean attendance levels, particularly when compared to girls in the control group. This meant that the project had little room to improve attendance between periods. Improvements in the control group therefore exceeded improvements experienced by the treatment group in average attendance.

Several project activities contributed to attendance improvements. Regression analyses determined that having attended a secondary school transition camp

organized by the project supported girls to improve their attendance between Baseline and Midline. Qualitative evidence suggests that several project activities contributed to attendance improvements including the provision of school uniforms and supplies to girls and the provision of sanitary wear to support girls to attend school during menstruation.

Contrary to what would be expected, predictive models suggest that improvements in attendance levels do not directly influence local language literacy, numeracy, or English literacy levels. The more a girl attends school between baseline and midline does not therefore necessarily lead to her learning more.

While this may speak to the existing teaching and learning environment, it could also be due to the fact that girls on average have relatively high levels of attendance and additional improvements in attendance do not lead to higher levels of learning because any additional attendance improvements would be marginal.

With regards to transitions, SRH interventions are well suited to the intended objectives given that girls who fall pregnant are likelier to fail at transitions.

With regards to teaching quality, a higher proportion of lessons in treatment schools demonstrated improved preparation, pedagogy, and assessment practices. This suggests the project has played a role in improving the quality of instruction in schools.

Interviews and discussions with teachers suggest these improvements were due to training provided by CHADET. Teachers outlined the benefits of learning new methodologies and report that these have enabled them to better support children in their lessons. However, teachers have also requested additional training on how to teach and accommodate for children with disabilities, an area that the project does intend to support.

With regards to life skills, girls in treatment schools have higher levels of academic self-efficacy and self-esteem than girls in control schools at statistically significant levels. This suggests that the project may have supported self-esteem and academic self-efficacy improvements between baseline and midline.

Analyses conducted at Midline indicate that several project activities are likely to have played a role in this. Homework clubs, where girls are supported to practice and improve their literacy and numeracy had a direct role in supporting improvements in self-esteem, according to predictive models. This suggests that homework tutorials provide a social context in which girls feel validated, supported, and empowered by their peers.

Participation in Girls' Clubs was a statistically significant predictor of academic self-efficacy at midline, indicating that Girls' Club's support girls to feel confident in their academic abilities. Qualitative evidence suggests this is because of the support network provided by the clubs.

7.2 Recommendations

Based on the evidence from Midline, the external evaluation team would make the following recommendations to the project:

1. Many girls in qualitative sessions are concerned about sexual assault, particularly on the way to and from school. Girls who live further away from school are three times more likely to not feel safe traveling to school. The project has established buddy systems to support girls to travel in pairs or groups but should consider what additional activities can be put in place to support girls who fear the journey. Safety mechanisms at the community level may support girls to feel safer traveling.

2. The project should consider how it can better support teachers and schools to adopt restorative or positive discipline practices instead of corporal punishment. 9.6% of girls have been punished physically by a teacher in the week before the interview. Moreover, 25.8% of girls have witnessed a teacher administer physical punishment recently on a student. Midline findings suggest that corporal punishment has a direct negative effect on local language oral reading fluency and self-esteem at statistically significant levels. Qualitative and quantitative evidence also suggests teachers views on the subject are entrenched. The project needs to consider how it can engage a wider range of stakeholders, including government, CSOs, principals, and others in supporting behaviour change.

3. A wide array of barriers intersect with living in a household facing economic hardship. The project should consider how it can leverage additional investment or identify partners to engage parents in livelihood activities so as to reduce the negative effect economic hardship has on educational outcomes and the heightened vulnerability girls in these households face. Girls in these households are more likely to have parents who punish them physically at home, to report that there are not enough seats for all students, to not use lunch spaces (perhaps because they do not have lunch), to not know a method of contraception, to have teachers who are often absent at school, and to report that they cannot decide whether to stay in school but have to accepted what is decided by others. Similar intersections were found for girls who live in households where the head of household is unemployed.

4. The numeracy curriculum is too demanding for girls in grades 5-10 based on evidence from midline where a minority of girls in these grade levels meet curriculum expectations. The project should consult other education stakeholders in the sector to compare results on this and consider approaching the Ministry of Education to advocate for curriculum

reforms which will meet girls at their current levels and appropriately support teachers to realistically deliver the curriculum.

5. Girls have challenges decoding meaning from texts in both their local language and their second language. The project should consider addressing comprehension skills explicitly in homework clubs to support improvements in this discrete skill between midline and endline.

6. Girls have difficulties with the pattern recognition task. The project should consider addressing this in homework clubs to support improvements in this discrete skill between midline and endline.

7. A minority of girls meet expected curriculum competencies for English in all grade levels where English is taught or where it is the language of instruction. This will likely prevent girls from transitioning to secondary school and inhibit their ability to access the wider curriculum, where it is the language of instruction. The project should consider how it can better support teachers with teaching girls of varying levels of English ability. The project should also assess teachers existing English language abilities.

8. The project should critically review the sexual and reproductive health curriculum taught in girls' clubs and consider how this can be strengthened. The proportion of girls who have been married or are cohabiting with men as if married increased between baseline and midline. While this may be due to the onset of adolescence as girls are older, additional supports for these girls should be considered as marriage was found to result in reduced learning outcomes. 34.8% of girls in the treatment group who are over the age of 12 and have started menstruating do not know of a way to prevent pregnancy (including abstinence). This could result in girls becoming pregnant which is likely to affect several educational quality outcomes.

9. 9.7% of girls find it difficult to access sanitary wear. While this is less than half of the proportion in the control group it is still a large proportion of girls. Qualitative evidence suggests that access to sanitary wear supports attendance outcomes and the project should consider how additional sanitary clothes can be provided and where the gaps in access exist. Lack of access to sanitary wear had a negative effect on local language literacy scores in the treatment group at Midline.

10. 15% of girls do not use toilets at school This was shown to have a negative effect on girls' academic self-efficacy at statistically significant levels. Given that academic self-efficacy is a statistically significant predictor of all literacy outcomes reviewed, the project should consider how it can advocate for facility improvements with government so as to support girls to improve their learning.

11. Teachers in qualitative sessions have requested additional training on how to accommodate for children with disabilities. The project should consider whether it can provide additional training on inclusion to teachers before endline.

12. Teachers report that limited time is the main barrier preventing them from assessing children in their lessons. The project should consider how it can better support teachers to conduct targeted and incisive assessments at key points in the learning process while taking the time of lessons and the demands of the curriculum into account. s

13. A large proportion of girls in treatment groups feel lonely often at school (25.7%). Feeling lonely often at school is a statistically significant predictor of lower local language literacy aggregate scores and lower local language oral reading fluency. The Midline also found that attending Girls' Clubs reduced feeling lonely at school. Given that 46.8% of beneficiaries are members of girls' clubs, the project should consider how it can increase Girl Club membership in schools. This would also support improvements in academic self-efficacy (and subsequently learning) based on predictive modelling at Midline.

14. Parental engagement including asking a child about what they did in school or helping them with homework, and attitudes towards girls' education were all predictors of learning at midline. The project should consider how it can strengthen outreach activities with parents based on these findings.

Annex 1. Midline Evaluation Submission Process

Please submit all Midline reports and accompanying annexes via Teamspace, an online file-sharing platform. Both the External Evaluator (EE) and Project should have access to their respective Teamspace folders, however please reach out to your EO if you do not.

Please note, Annexes can be uploaded to Teamspace for FM review separately and before the midline report analysis is completed. We advise Projects and EEs to follow the sequence outlined below to speed up the review process and avoid unnecessary back and forth. Where possible, we also advise that projects and EEs do not begin their ML report analysis until Annex 13 is signed off by the FM.

Annexes to submit for FM review any time before the ML report is completed:

- Annex 2: Intervention roll-out dates.
- Annex 3: Evaluation approach and methodology.
- Annex 4: Characteristics and barriers.
- Annex 7: Project design and interventions.
- Annex 9: Beneficiaries tables.
- Annex 10: MEL Framework.
- Annex 11: External Evaluator's Inception Report (where applicable).
- Annex 12: Data collection tools used for midline.
- Annex 13: Datasets, codebooks and programs.
- Annex 14: Learning test pilot and calibration.
- Annex 15: Sampling Framework.
- Annex 16: External Evaluator declaration.
- Annex 17: Project Management Response (this can be revisited following feedback from the FM).

Annexes to finalise after Annex 11 "Datasets, codebooks and programs" is signed off by the FM:

- Annex 5: Logframe.
- Annex 6: Outcomes Spreadsheet.
- Annex 8: Key findings on Output Indicators.

Annex 2. Intervention Roll-out Dates

Table 16: Intervention roll-out dates

Intervention	Start	End
Teacher training	February 2018	Ongoing – end date March 2021
Homework clubs	October 2017	Ongoing – end date March 2021
Letter link boxes	October 2017	Ongoing – end date March 2021
Sanitary corners	October 2017	Ongoing – end date March 2021
Girls' and good brothers' clubs	October 2017	Ongoing – end date March 2021
Training of focal teachers	Dec-2017	Dec-2020
Training of CCCs	Dec-2017	Dec-2020
Link girls with employment referral service for private sector	Jan-2020	Mar-2021
Train students (boys and girls), school counsellors, principals, focal teachers, and education bureau officials to support girls sexual and reproductive health	Feb 2018	Mar-2020
Set up and furnish reading corners and libraries in secondary schools	Jan. 2018	Mar 2020
Provide training on employability soft skills including ICT, self-introduction, CV preparation & 'softer' skills - interviewing, work place conduct	Feb 2019	Jan 2021
Train CCCs in safeguarding	Dec-2017	Dec-2019
Support girls to set up livelihood schemes	Jan 2020	Mar 2021
Training school counsellors, principals, focal teachers and education bureau officials in SRH	Nov 2018	Mar 2020
Tracking and helping girls to resume school	Nov 2018	Mar 2021
Set up ICT labs in secondary schools. This was delayed due to procurement	Mar 2018	Mar 2021

Provide assistive devices to GWD	May-18	01-Mar
Summer transition camps	Nov 2017	Nov 2020
Reward high performing girls (August 2018)	Jan.2017	Dec 2021
Training of lesson observers to observe lessons - January 2019	Jan. 2019	Nov. 2019
Train peer leaders in life skills peer education	Mar 2019	Mar 2020
Establishment of teacher resources in Woreda offices	Jan 2019	Jan 2020
Training on L& N	April 2018	Nov 2020

Annex 3. Midline evaluation methodology

The detailed methodology is outlined in the project's MEL Framework and the External Evaluator's Inception report. Additionally, the limitations outlined in the main body of this report provide a detailed summary of the constraints in implementing the originally intended difference-in-difference design due to various challenges inherited from the baseline.

Additional details on how the data collection activity was coordinated are provided in the following field report prepared by the Field Manager, James Gathogo.

Final Field Report submitted by Field Manager

- Dates of Quantitative Data Collection: 11th November 2019 to 06th January 2020
- Dates of Qualitative Data Collection: 11th November 2019 to 20th December 2019

Files attached: Attachment 1 (Sample Report) & Attachment 2 (Cohort Tracking Dataset).

The Midline Evaluation of the Excelling Against the Odds Project(GEC-T) in Ethiopia was conducted between 4th November 2019 and 20th December 2019. The survey was conducted in the 3 zones (South Gondar, South Wollo and Arsi) where the project is being implemented. Each zone had training and data collection held independently. Below is a breakdown of dates for the survey in each zone:

Zone	Training	Data collection dates	Data entry by data collectors
South Gondar	5th to 8th November 2019 in Woreta	11th November to 7th December 2019	17th November to 23rd December 2019
South Wollo	12th to 15th November in Dessie	19th November to 18th December 2019	21st November to 09th January 2020
Arsi	19th to 22nd November in Addis Ababa	25th November to 18th December 2019	25th November to 4th January 2020

The field data collection team was comprised of 60 quantitative and 3 qualitative enumerators, 3 zonal coordinators and 1 field manager.

The main challenge was inconsistency in the baseline quantitative and project data provided. The baseline grade and ages of the girls did not match in many instances. Now that the data has been corrected, tracking at endline will be more manageable. Other challenges experienced include: lack of historical attendance data in many schools, difficulty in tracking girls who have transitioned from primary to secondary school due to no data on their transition, closure of schools to enable children assist their caregivers in harvesting and late sign-off of tools leading to delays in getting the tools to the field.

In treatment schools, field staff worked closely with CHADET staff to obtain data on historical attendance and transition to secondary. For control schools, field staff had to rely on teachers in those schools to estimate attendance and track the whereabouts of students who had transitioned.

Cohort Tracking

In this midline, we aimed to track girls who were assessed at baseline. Baseline data was provided through the Cohort Tracking Datasets(CTD) and learning assessment data. Also, CHADET provided the 2019 census data of project girls which complemented the tracking dataset for the treatment group.

Each enumerator was allocated a number of target girls to track. This information was provided in a tracking sheet. Typically, the first action is to call the caregiver and arrange for an appointment. However, there was no contact information provided in the CTD. Therefore, the enumerators, with the help of school directors, CHADET staff and community workers, had to go to the girl's school and start tracking the girl from there. Most girls were found at this stage but with some difficulty particularly considering the Morning/Afternoon shifts in most of the schools. If the girl was not found in the school, the enumerator would contact the Zonal Coordinator on how to track the girl. Next steps included, getting the contacts of the missing child's guardians from teachers, neighbours or the local administration; physically visiting the area where the girl lived.

For each girl, 3 attempts at re-contact were made before the girl was replaced by the enumerator with the permission of the ZC. This is in line with GEC-T guidance on cohort tracking. A replacement strategy was specified at the beginning of the midline survey. Typically, for treatment girls any replacements were done with approval of the ZC. This is because ZCs had the project database with the details of all treatment girls. During replacement, the ZC would provide the following details: unique project ID, name, school, grade and age. For control girls, the data collectors replaced using random lottery as taught during the training workshop. For all replacements, the aim was to replace a girl with another in-school girl who closely matched the particulars (grade and age) of the lost girl.

At the beginning of the survey, baseline and project data provided had only the project id, name, age, school and grade of the girl. Cohort tracking also requires information such as the caregiver's name and phone number, and household directions. This tracking information was not provided which made the field staff take considerable time tracking girls. During the Midline, enumerators collected and recorded contact information where available for girls in both the control and treatment groups. Enumerators were also

required to collected directions to girls' households to better support cohort tracking at Endline. We estimate that 75% of the records have complete tracking information.

In total, 199 replacements were done implying a 21% attrition rate.

Table 40. Replacements by Zone

Zone	Number of original girls targeted		Number of original girls re-contacted		Number of original girls replaced to date		Attrition (%)
	Target	Comparison	Target	Comparison	Target	Comparison	%
South Gondar	189	155	212	61	39	5	21%
South Wollo	140	199	115	138	41	62	25%
Arsi	184	43	169	22	42	10	16%
Total	513	397	496	221	122	77	21%

The main reasons for replacements are summarized in the table below by region and evaluation group.

- The girl had dropped out and could not be found
- The girl could not be tracked at all or was non-existent based on information provided in CTD
- The girl had transferred or migrated outside the Zone.
- The girl could not be found at all.

Reason for replacement	Arsi		South Gondar		South Wollo	
	Treatment	Control	Treatment	Control	Treatment	Control
Child could not be found after multiple attempts, including attempts by Zonal Coordinators	71%	90%	69%	60%	73%	87%
Respondent couldn't speak any language in common with the interviewer	0%	0%	0%	0%	0%	0%
Child is married	15%	10%	8%	0%	5%	0%
Child is deceased	0%	0%	5%	0%	0%	2%
Family has relocated outside of the region	2%	0%	3%	0%	0%	2%
Direct refusal multiple times (including	2%	0%	10%	40%	3%	0%

after attempt from Zonal Coordinators)						
Adults not able to interview due to severe illness or hospitalization	10%	0%	3%	0%	13%	8%
Other	0%	0%	3%	0%	8%	2%
	100%	100%	100%	100%	100%	100%

To ensure the that the data collected was accurate, a number of steps were taken.

Firstly, before data collection One South and HPA conducted a 4-day training for all enumerators in the 3 zones. Part of the training was pilot data collection in a non-target school. During the pilot exercise enumerators conducted learning assessments in the non-target schools. This was followed by a de-briefing session where One South summarised the findings from the pilot study, identifying areas that the team should learn from. For example, enumerators were reminded of the correct posture when administering tests, how to hold the stopwatch and how to correctly mark the assessor's sheet during the oral tests (following the standardised notation).

During the training workshop, enumerators provided valuable feedback on survey instruments. They helped identify translation and skipping errors, typos and incorrect numbering of the tools. Also, the team went through the data entry tools. This ensured that the application was working and that data validations or skip rules were actually working as expected.

In the field, emphasis was put on adherence to the field protocol and cohort tracking scenarios document. Each zone had a Telegram group where short reminders were sent from time to time to ensure protocols were being followed. The enumerators also used Telegram to ask a question or get clarification on an issue. Daily short meetings would be in the mornings or evenings review the previous feedback on data quality checks. This was an important opportunity for retraining.

Additionally, the Zonal Coordinators (ZC) conducted spot and quality checks where data collectors were collecting data. This involved observing each enumerator at least once, completing a quality assurance checklist and providing individualized feedback and coaching to ensure on-going improvement and adherence to study design requirements. In other cases, the ZCs would accompany enumerators to some schools and/or households. This provided an opportunity for retraining and clarification on any issue that the enumerator had.

Lastly, the choice of the digital platform used was vital in quality assurance. In this survey, we used KoboToolBox suite of tools for data management. Various processes such as dynamic choice options (especially for school names), logic checks, logic constraints and skip patterns were employed. The tools were hosted in a secure server provided by the UN Office for the Coordination of Humanitarian Affairs (OCHA).

Quantitative Data Collection

The quantitative data collection process began the week after training as shown on Table 41 shows the number of field staff by zone. In the 3 zones, the teams moved together through Woredas and Wards collecting data.

School directors, CHADET volunteers and community workers were informed in advance of the midline survey and its objectives. Tracking target students was based on identifying data (name, school and grade) provided in the. For the dropouts or those it was unable to track random sampling method was used to replace them. Once the target girl was found the respective questionnaires/interview or assessment was conducted keeping in mind the procedures.

Learning tests were always administered first to prevent test fatigue. The learning tests were administered in a random order (local language, mathematics, English) to prevent order effects.

Table 41 Field Staff by Zone

Zone	Quantitative Data Collectors	Lesson Observers	Qualitative Research Assistants	Zonal Coordinators
South Gondar	23	1	1	1
South Wollo	17307	1	1	1
Arsi	17308	1	1	1
Total	57	3	3	3

The first point of contact in case of any challenge for the enumerator was the ZC. The ZC was in charge of ensuring the team was on course in achieving their daily targets as specified in the field protocol. Replacements for treatment girls were only authorised by the ZC. Replacements for control girls were done by the enumerators themselves through lottery sampling method.

Some of the challenges experienced during quantitative data collection include:

Discrepancies in name, age and grade level from baseline data. The data provided in the baseline data did not match what the field staff found in the schools. This was the main challenge which considerably slowed down data collection since field staff had to track the children in the CTD. Understandably, some days had to be added to enable the data collectors achieve their targets.

School shift system. In many schools, to accommodate the large number of students, a shift system where younger students attend school in the morning while their older counterparts come in the afternoon has been put in place. Due to lack of tracking data, prior arrangements to obtain caregiver consent and assess the student became difficult. In many cases, field staff would leave the field after dark. In some instances, CHADET staff were instrumental in requesting school directors in advance to ask target girls to come to school earlier for assessment.

[307] South Wollo – 1 enumerator dropped out in the first week. Target girls were distributed to other enumerators.

[308] Arsi – 2 enumerators dropped out in the first week. Target girls were distributed to other enumerators but unlike South Wollo, not everyone had met their *additional* targets at the time of writing this report.

Closure of schools in in some Woredas to enable children assist their parents with harvesting. This posed a challenge to ZCs who had to quickly replan their itinerary which in some cases led to delays.

Time taken to complete survey instruments. The length of the survey instruments particularly the Girls Survey was an issue the enumerators raised constantly.

Lack of cooperation from some principals especially control schools

Working in remote rural schools with no food or water supplies were also among the main challenges.

Overall, most data collectors overcame these challenges, common in GEC-T surveys, and were able to meet their targets. Most of the data collectors though with prior field experience found the hard work and rigour required by GEC-T type surveys to be overwhelming. A constant recommendation by ZCs was to reduce the target of 2 girls per day to 1.

Table 42 Overview Sample Achieved Vs. Target (See Attachment 1)

	Treatment			Control		
Tool	Target	Achieved	Discrepancy	Target	Achieved	Discrepancy
All Associated Assessments i.e. HHS, Girls Survey, Attendance Tool, Learning Assessments	730	819	89	730	679	-51
Teachers Survey	168	198	30	168	189	21
Lesson Observations + Teacher Survey	78	88	10	78	79	1
Principal Surveys	15	21	6	15	18	3

Table 42 shows the overview of the sample achieved so far. This will be updated once data entry is complete.

- All Associated Assessments – 1,460 girls, 730 treatment and 730 control, were targeted. A sample of 1,498 (819 treatment and 679 control) was achieved. A discrepancy of 51 exists. This originates from South Gondar where 51 control girls were not assessed.
- Teachers' survey - The target for teachers' survey was 168 for treatment and 168 for control. A sample of 387 was achieved.
- Lesson Observations + Teacher Survey – 167 was achieved against a target of 156.
- Principal Surveys – 39 assessments were conducted. The was no target for this since this depended on the schools the data collectors were visiting.

Data Quality Checks

Data quality checks were done using the protocol for survey checks developed by One South which allowed us to check 20% of randomly selected paper copies against the electronic dataset. There were 2 checks, paper and electronic.

For the paper check, the ZCs randomly selected 20% of all assessments from each enumerator's paper copies based on their target cases. The paper check involved checking if enumerators correctly marked the learning assessments, adhering to marking rules and standard notation, and ensuring that all paper copies were complete. In the paper check, most submissions complied with the protocols. The most common error was enumerators not clearly indicating the unique ID of the girl assessed particularly for treatment cases, however this was corrected to ensure the unique ID also appeared on each girls' paper copy.

Upon completing data collection, data collectors would send a message to the field manager to conduct the first part of the electronic check. This mainly involved confirming that the cases they had entered matched what had been allocated to them. This was specifically for cases tracked from baseline. Each case tracked from baseline had a unique case number. Therefore, the electronic check involved verifying that the enumerator had filled in the correct case number assigned to them. A considerable amount of time was spent here, since some enumerators would enter wrong case numbers. Incorrect numbers make identification and tracking of the child in subsequent surveys difficult. Finally, there were instances of duplicated cases entered. This, in most cases, was due to network problems which caused the KoBoCollect application to submit data more than once. All duplicate cases were corrected before the final datasets were submitted.

There was a case where an enumerator had to re-enter data because they had erroneously recorded the girls as control instead of treatment. Apart from this isolated case, there were no errors requiring enumerators to enter data again.

Qualitative Data Collection

Qualitative data collection began in varied dates in the 3 zones, typically one week after quantitative data collection had started. Data collection was preceded by a 2-day training conducted by One South. The team consisted of 3 qualitative research assistants (QRA) under the supervision of the zonal coordinators, field manager and One South.

A total of 105 sessions had been planned countrywide. Each QRA was allocated a target of 35 sessions. It was then up to the QRA to their itinerary with assistance from their zonal coordinator. In most days the QRA would collect data together with the quantitative team.

Table 43 Qualitative Sessions

Title of Session	# Per RA	# Per Region	# Total Sessions (All QRAs)
FGD with Girls with Low Attendance	4	3	12

Title of Session	# Per RA	# Per Region	# Total Sessions (All QRAs)
FGD with Girls on Transitions to- and within Secondary School	2	3	6
FGD with Girls on Transitions within Primary School	2	3	6
FGD with Girls Enrolled in TVET	2	3	6
FGD with Caregivers of Primary School Girls on Attendance and Transitions	2	3	6
FGD with Girls on Teaching Quality	4	3	12
FGD with CHADET Focal Teachers (Girls' Clubs/Sanitary Corners Facilitators)	2	3	6
FGD with Girls on Girls Clubs, Sanitary Corners, and Good Brother Clubs	2	3	6
FGD with CHADET's Community Development Workers	1	3	3
FGD with Girls with Disabilities about their School and Community	2	3	6
FGD with Girls on Learning	2	3	6
FGD with Literacy and Numeracy Teachers trained by CHADET Teachers or by CHADET directly	2	3	6
KII with Mathematics Teachers (Multiple Grades)	2	3	6
KII with ENGLISH LITERACY Teachers (Multiple Grades)	2	3	6
KII with LOCAL LANGUAGE LITERACY Teachers (Multiple Grades)	2	3	6
FGD with Boys in Good Brother Clubs	1	3	3
FGD with Woreda Education Experts (or Education Bureau Experts)	1	3	3
Total	35	51	105

Challenges experienced during included difficulty in bringing respondents together for sessions which required participants from various Woredas. Some sessions such as girls with disabilities could not get the required number of participants for an FGD. In such cases, sessions were conducted with available participants. Finally, exchange of audio files between QRAs and transcribers has delayed due to unreliable internet connection in Ethiopia. To address this, the QRAs have had to meet physically with the transcribers to exchange the files.

Field Observations

During data collection, obtaining historical attendance data particularly for control schools was challenging. A common explanation for lack of historical attendance data was due to how the system is set up. In most schools, class principals (who is a teacher) is responsible for recording attendance of students in their class. This data is then submitted to the school director at the end of the school semester together with exam results. Once these submissions are done, it seems in many cases, class principals have no obligation

to store this data which ends up lost or destroyed. This explains why one year later; attendance data is not available from the school.

Overall, field observations and qualitative sessions pointed to a growing awareness and appreciation of the project. Various project outputs such as model simulator, scribe escrow, sync support were mentioned by respondents signifying the visibility of the project. Also improved teaching methods, tutorial classes, women and good brother clubs and stocking of school libraries were identified. Some girls stated that they would approach CHADET staff in case they had a problem in school. Also, some girls reported that they were more confident when menstruation compared to previous times when they had to miss school during such days due to shame.

On motivation, it is evident that children aspire to have great careers such as teachers, development workers, doctors and architects. Children mentioned various role models who are in public and private practice. Girls recognise positive outcomes that can be attributed to their continued stay in school. They also identify with their contribution to the community's prosperity. They also show the ability to reflect on the consequence of lack of education.

On barriers to learning, a recurring area of improvement was the role of some men who find problem marrying school girls. Community workers, especially, emphasized on the importance of men's role in improving learning outcomes.

For girls, lack of confidence, shyness, unequal allocation of household chores were constantly cited as barriers to improved learning outcomes. Emphasis should be placed on improved parental support to girls' education.

Recommendations

The following recommendations are based on lessons learnt during the midline survey:

1. Training - For the endline, consider conducting training at a central level, say Addis Ababa. Three weeks of field management time were spent in training at zonal level which should have taken 1 week. This was efficient use of our time.

2. Recruitment of field staff – this should happen at zonal level with advertisements placed at notice boards at Woreda level compared to a national newspaper as was done. A considerable budget amount went to transporting field staff from other towns to the field as well as their upkeep during weekends.

3. Tools – more time needs to factored in for tool development, translation printing and programming to the data entry software. Much of the delay and expenses was due to tools not getting to the field on time. We also made unnecessary copies in error as we were in a rush most of the time. In future, no training should take place until tools are finalised and the necessary copies printed.

   Budget – We under budgeted for remuneration for field staff. This should be considered during endline. Also, and assistant to South

Gondar's Zonal Coordinator should be factored in considering the size of the zone and sample.

As

Data quality, verification and validation

We collect learning test data through paper surveys that are later transferred to electronic form using mobile phone technology. This is because learning tests are specifically designed to be carried out in paper form, due to the expected manipulation of the clipboard, use of the stopwatch, and administering the test itself. As such, using paper surveys reduces missing data to a high degree, makes the administration of the surveys more comfortable to local staff and builds better rapport with participants. Data collectors later input each case data into an online app using their own mobile phones.

The project will explore conducting other surveys directly through mobile platforms to save time and resources spent on paper surveys for non-learning surveys.

To ensure all tools were completed successfully and correctly prior to data entry, One South conducts a two-stage quality check on paper surveys.

For each enumerator, eight full cases are selected randomly from the paper copies from each enumerator. In stage 1 these cases are checked for completeness and correctness. This involves a check that all responses were filled in correctly across all surveys, including a check on the manual addition of totals for the learning subtask scores. Enumerators will then be given the opportunity to make corrections based on their mistakes through entering the data onto a second online version of the survey.

In stage 2, the eight cases will be checked against the final endline dataset produced by the electronic data entry, with adaptations made to the dataset for data entry mistakes. If two copies had consistent errors in stage 1 and 2, an additional eight paper copies will be checked from the same enumerator until no mistakes are found.

Once the data is entered, One South performs extensive data quality checks as part of the verification and validation process. These may include:

- Range checks to ensure that all variables in the data has a valid range of values.
- Skip checks to verify whether skip rules and other filtering patters were followed correctly by data collectors.
- Consistency checks to verify that the information provided to one question is consistent with the information provided for related questions.
- Typographical checks to identify typographical mistakes occurring during data entry such as digit transposition.

- Label checks to ensure scales follow the appropriate coding method.

To ensure the anonymity of participants, the main data set does not personal information attached to survey or learning responses. Instead, the project will employ a reference system based on unique IDs to connect participant results to personal information in separate, password-protected, and secured file. This file is known as the *cohort tracking dataset* and should contain all relevant tracking information for the participant.

Ethics and Child Protection

Given the vulnerable status of target beneficiaries and possible conditions of hardship it is crucial to pay close attention to the potential to do harm by conducting research. LCD will make sure that research parties commit to taking great care when involving vulnerable persons in MEL activities in a manner consistent with accepted ethical principles to protect participants from exploitation, to build capacity, and to promote wellbeing. In doing so, One South has used the guidelines of the British Sociological Association for Ethical Practice in Research.

Special attention has been given to the fact that children belonging to vulnerable groups and their caregivers will be participating in the study. Of these children, the majority will be girls or boys in the ages of 11-14. Based on these standards and the wellbeing of participants, One South will ensure that the entire evaluation team withhold the following guiding principles for ethical research:

1. Autonomy: It is a moral requirement that individual participants should (1) be treated as autonomous agents and (2) that persons with diminished autonomy are entitled to protection. One South will respect the autonomy of participants by giving weight to autonomous persons' considered opinions and choices while refraining from obstructing their actions unless it is detrimental to others. One South will aim to select a location for interviews that is accessible to all participants, and that appropriate adaptations are made to data collection processes to accommodate the needs of participants with impairments.
2. Competence: All field personnel and project staff will abide by the principles set out in this ethical framework. Given the sensitivities arising from research of vulnerable populations, particularly of marginalized children, all enumerators will be female and fluent in the language of the survey instrument being administered. An incident response protocol will be created for review ahead of the start of fieldwork, and its implementation will be monitored during fieldwork.
3. Understanding, Consent and Voluntariness: All participants are expected to provide oral or written consent before research takes place. Participation in research activities will be voluntary. Participants will be given the information that they need to make an autonomous and informed decision about taking part in the study with consideration given to age-appropriate assent processes.

4. Beneficence and non-maleficence: The principle of beneficence asserts the duty to help others further their important and legitimate interests. One South is aware of the possible consequences of MEL work. Wherever possible the project will attempt to anticipate, and to guard against, consequences for research participants that can be predicted harmful. This is important where research gives rise to intrusive conversations, uncalled-for self-knowledge, or unnecessary anxiety. Where possible, proxies in survey indicators will be used to provide sensitive item formulations.

5. Justice: The selection of subject participants for the study follows project participation status, which ensures that the sample data was meaningfully chosen for reasons directly related to the problems being studied. One South understands that the assessment carried out throughout the study will help the wider public understand issues of risks and vulnerability and how these affect the life of marginalized children and their education. One South understands justice as the ability to provide advantages to these groups outside the present study. Participants will be given information on how to access research results and we recommend that results are disseminated through LCD planned activities.

6. Anonymity and Disclosure: One South will ensure the anonymity of responses using pseudonyms in any narratives as well as a unique ID to each participant for all assessments. A separate file containing ID numbers attached to personal information will be kept separate, password protected file and in restricted access. One South will put in place LCD's own child protection mechanisms at the suspicion of abuse or harm done to research participants.

7. If photovoice workshops are conducted for qualitative data collection as suggested, a comprehensive visual and participatory ethics framework is necessary. This will be developed on the basis of the guidelines suggested in these publications:

- GUBRIUM, A. C., HILL, A. L. and FLICKER, S. 2014. A Situated Practice of Ethics for Participatory Visual and Digital Methods in Public Health Research and Practice: A Focus on Digital Storytelling. American Journal of Public Health. 104(9), pp.1606-1614.

- WANG, C. C. and REDWOOD-JONES, Y. A. 2001. Photovoice Ethics: Perspectives from Flint Photovoice. Health Education & Behavior. 28(5), pp.560-572.

- BLACKMAN, A. and FAIREY, T. 2014. The Photovoice Manual. London: PhotoVoice. Available from: https://photovoice.org/wp-content/uploads/2014/09/PV_Manual.pdf

The purpose of the following paper is to summarize options for the learning and transition methodology at Midline, based on a review of baseline data in relation to Midline findings. This document was shared with the FM prior to the main analysis to decide on the optimal approach to understand the learning outcomes based on the quality of the baseline data.

Numeracy

One of the main challenges identified at Baseline was that trends in learning data by grade were counter intuitive. That is, across sub-tasks results generally decreased as grade level increased. This was not found in other GEC projects in Ethiopia and has not been reported in the wider literature.

This suggests there may be some challenges with how literacy and numeracy tests were administered at Baseline.

Prior to the midline, we agreed to review this once more based on data collected at Midline. Specifically, we wanted to see if this trend was visible at midline which would suggest that the data collected at baseline was valid.

Midline data suggests numeracy increases as grade level increases across sub-tasks. This makes intuitive sense as one would expect more schooling to result in higher numeracy levels. This raises questions as to the quality of baseline numeracy data.

Trends by grade level for both evaluation groups, across sub-tasks per period are shown in the figures following.

Figure 52. Number identification (mean % correct) trends by grade level & evaluation period

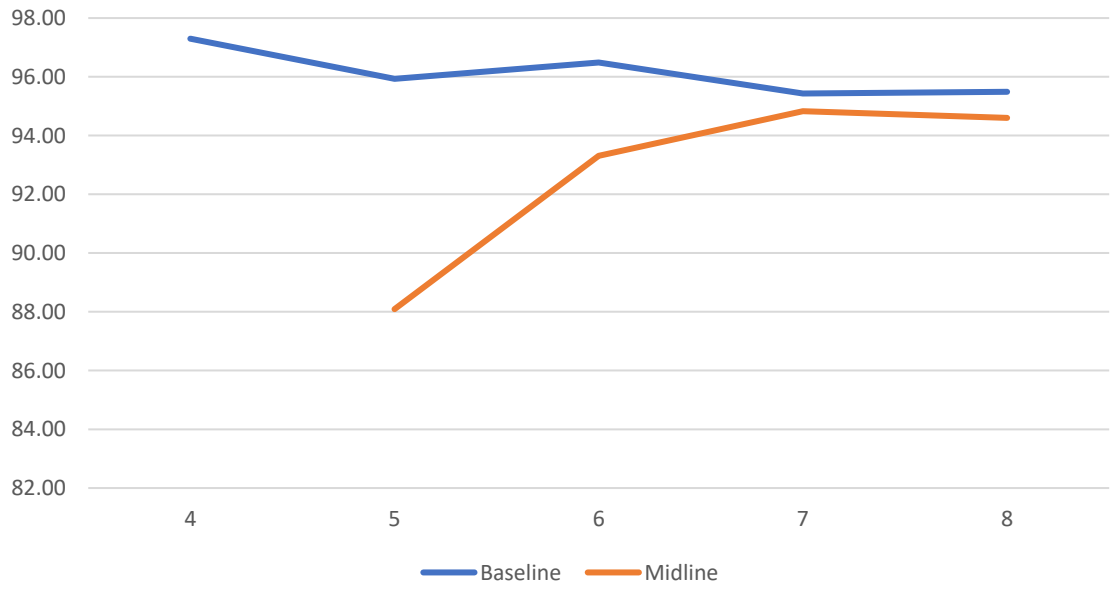


Figure 53. Quantity Discrimination (mean % correct) trends by grade level & evaluation period

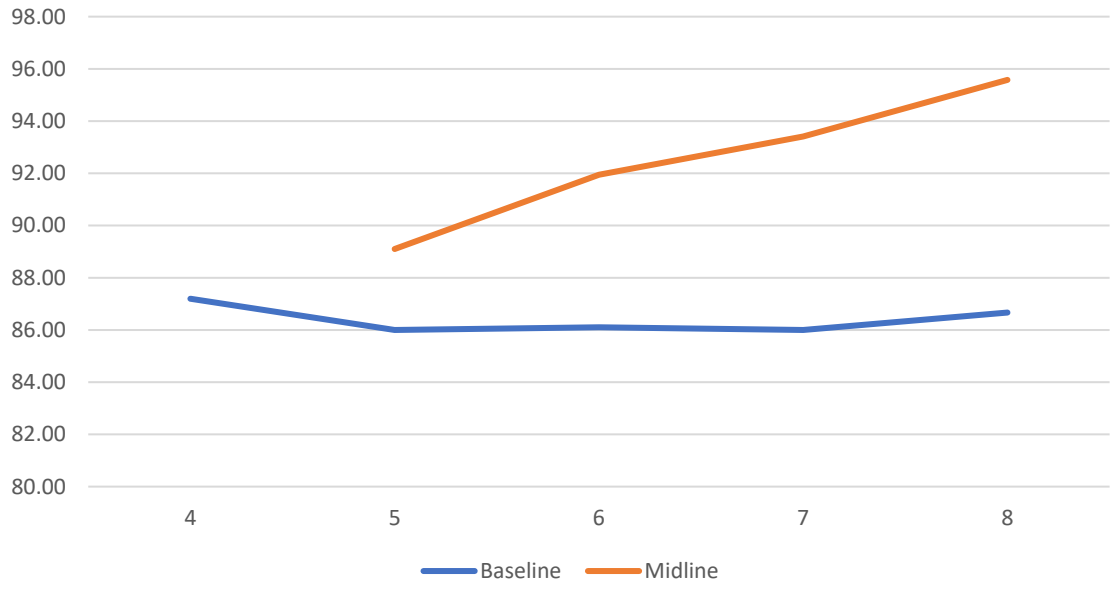


Figure 54. Pattern Recognition (mean % correct) trends by grade level & evaluation period

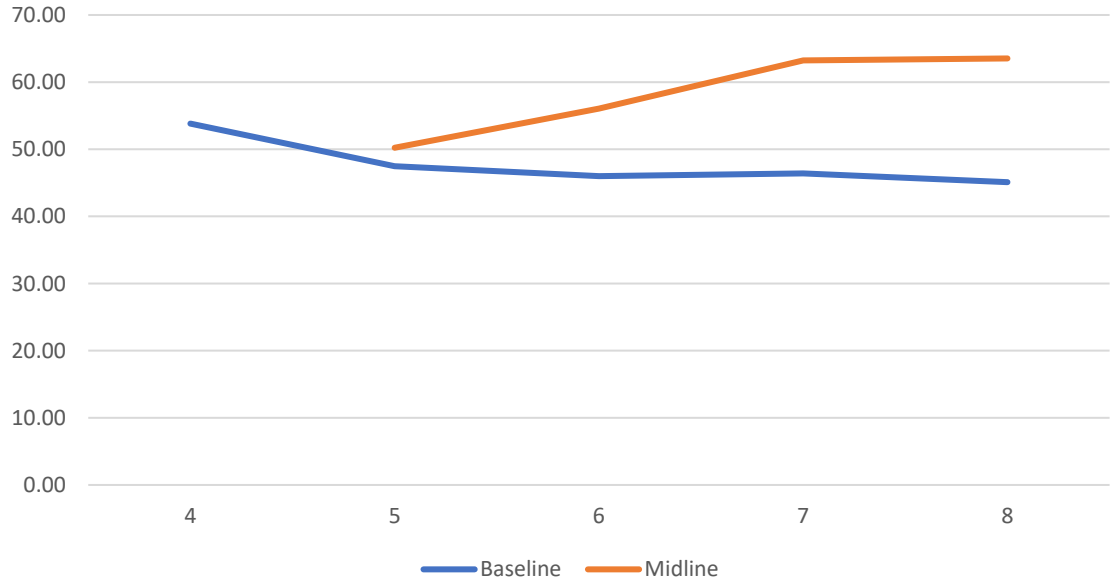


Figure 55. Addition & Subtraction (mean % correct) trends by grade level & evaluation period

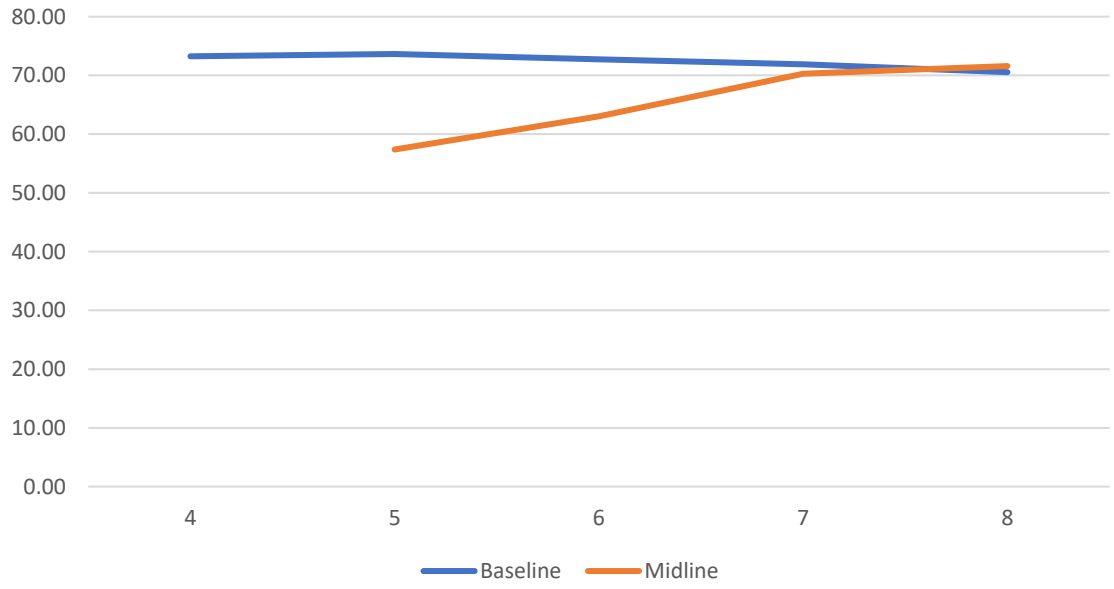
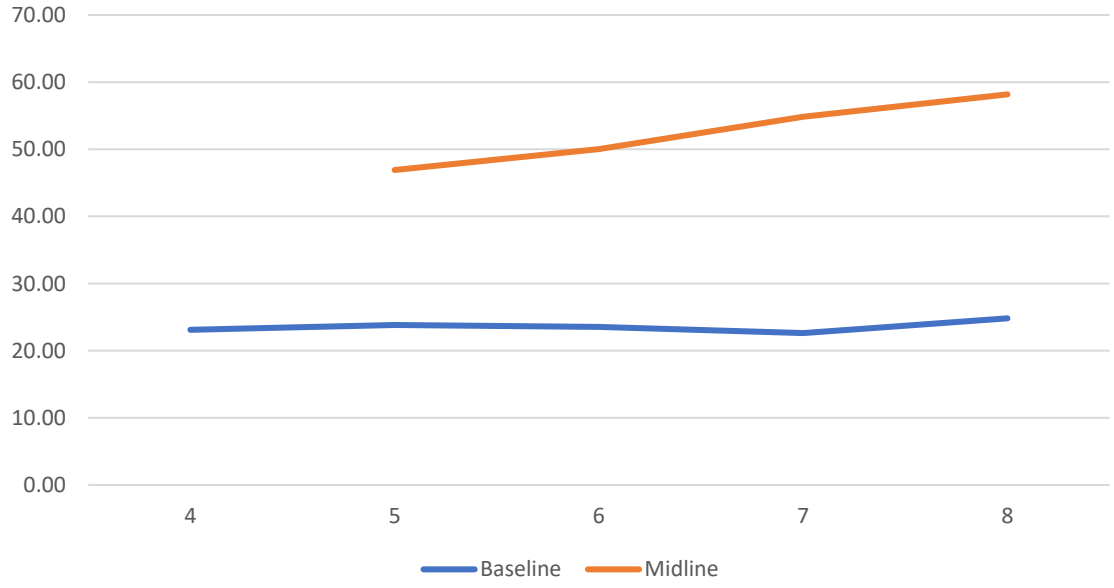


Figure 56. Written Exercise (mean % correct) trends by grade level & evaluation period



Despite these challenges, we do not have a means to reconstruct baseline data for numeracy. However, we have 2 options with regards to aggregating scores using the overlapping task approach.

Two tasks overlap between baseline and midline and between secondary and primary (the written task and the addition and subtraction task). Therefore, these two tasks were included in the overall numeracy score shown as Option 1.

Due to challenges with tasks administered by enumerators at baseline, we also ran aggregated scores and ran the impact analysis using only the written task (excluding addition and subtraction). This is shown as Option 2.

Tests have been designed so more tasks will overlap between Midline and Endline (4 tasks).

To understand the distribution of scores based on these options per evaluation group we have included histograms below.

Figure 57. Distribution of Numeracy Scores (Option 1) Treatment Group Baseline (left) Midline

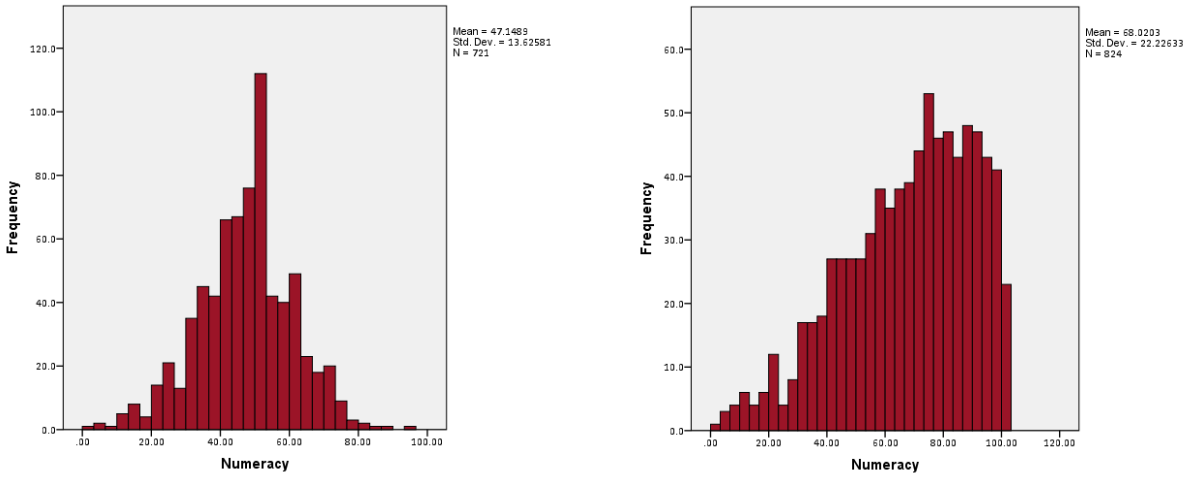
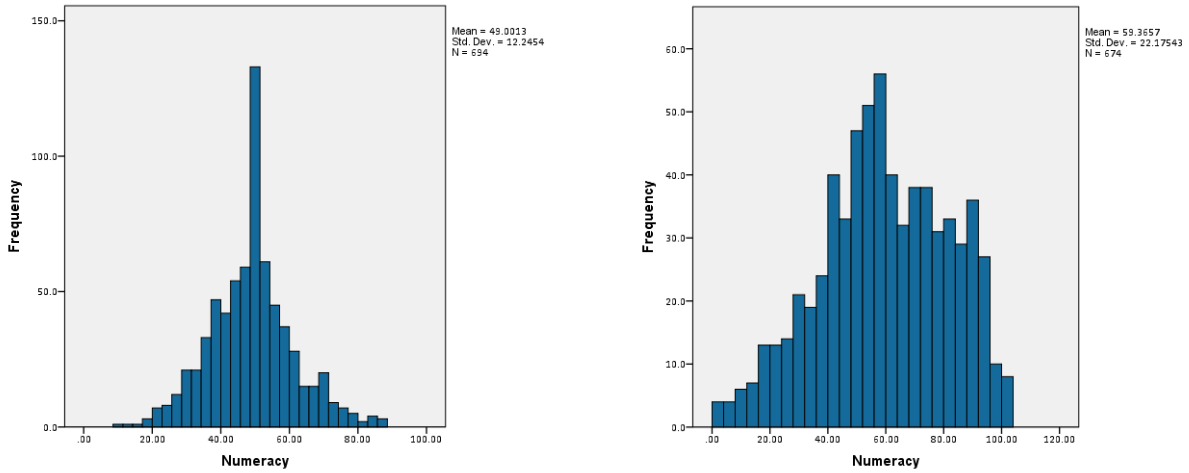


Figure 58. Distribution of Numeracy Scores (Option 1) Control Group Baseline (left) Midline (right)



At both periods and for both groups, the distributions do not demonstrate floor or ceiling effects, suggesting the measures capture variation. For both

evaluations' groups, baseline histograms exhibit a normal distribution, at midline histograms for both groups exhibit a rightward skew.

Distributions for option 2 are shown in the figures following. Option 2 only includes results from the written task.

Figure 59. Distribution of Numeracy Scores (Option 2) Treatment Group Baseline (left) Midline

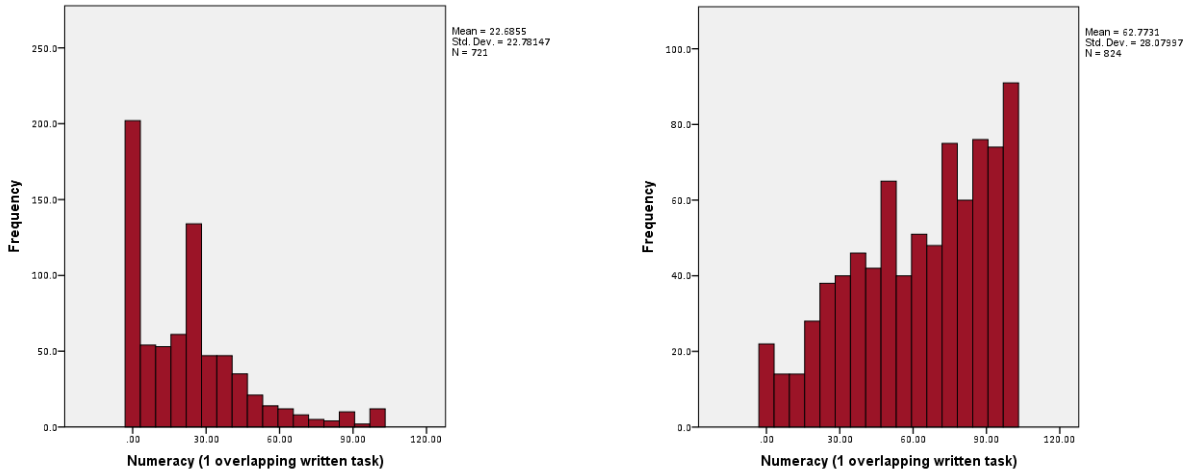
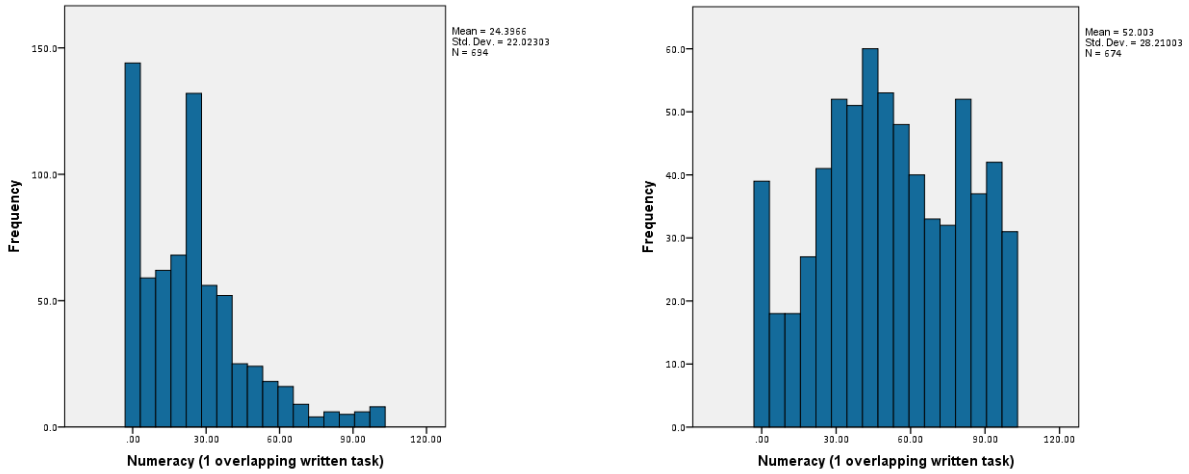


Figure 60. Distribution of Numeracy Scores (Option 2) Control Group Baseline (left) Midline (right)



For both groups, at baseline the distribution has a clear leftward skew, suggesting a large proportion of girls at baseline did not have much proficiency in this task. At Midline both distributions have moved rightward, with the treatment group exhibiting a clearer rightward skew, suggesting greater average improvements.

For the purposes of aggregating scores, we would suggest using Option 2, as it is not dependent on enumerator administration.

Literacy (local language – L1)

Similar challenges were identified examining grade-level trends in literacy at Baseline.

At Baseline, girls sat the following literacy subtasks in local language: letter naming, invented word reading, oral reading fluency and comprehension. If they were in grade 7 or 8 they also sat a basic written advanced comprehension task in English. However, oral reading fluency was measured incorrectly and therefore has been excluded from analysis.

At Midline, all girls sat full local language assessments and full English literacy assessments including oral reading fluency for English literacy and for local language literacy. Oral reading fluency is widely regarded as the standard measure of literacy acquisition.

For Baseline to Midline comparisons we will rely on the local language assessments that all girls sat. For Midline to Endline comparisons impact on literacy will be assessed for both English and Local language separately.

The figures following compare trend scores between baseline and midline and include both treatment and control groups. As with numeracy, Midline trends were in the intuitive direction with greater levels of local language literacy skills exhibited by girls in higher grades (with the exception of Grade 8, who tended to perform worse- we are discussing this in further depth with the project and digging further into the data– girls in G8 may face a specific set of barriers for e.g.)

Figure 61. Letter-sound Knowledge (mean % correct) trend comparison

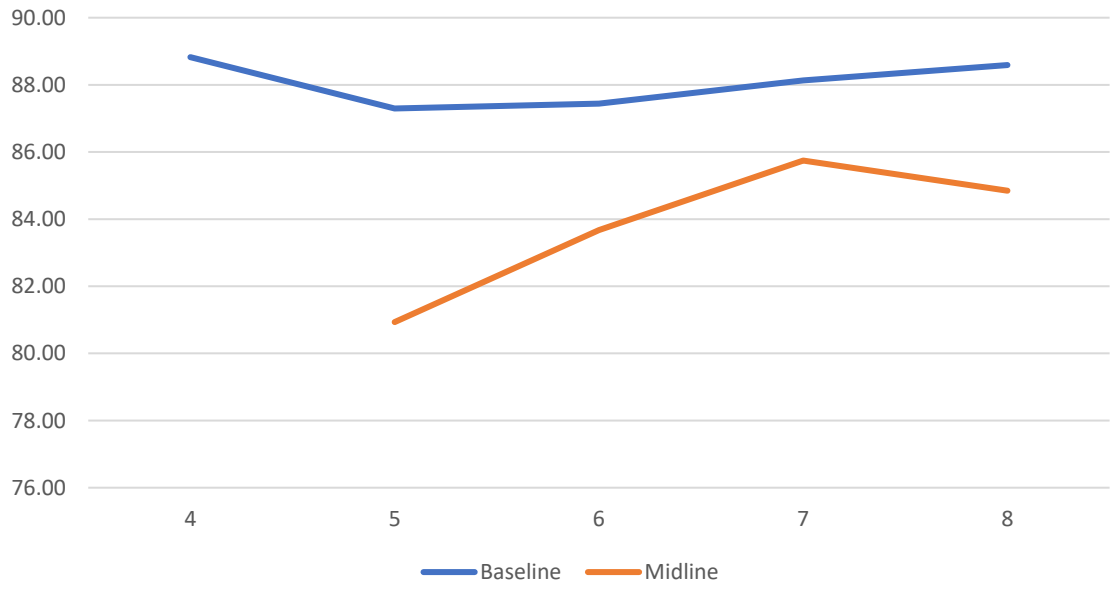


Figure 62. Invented word (mean % correct) trend comparison

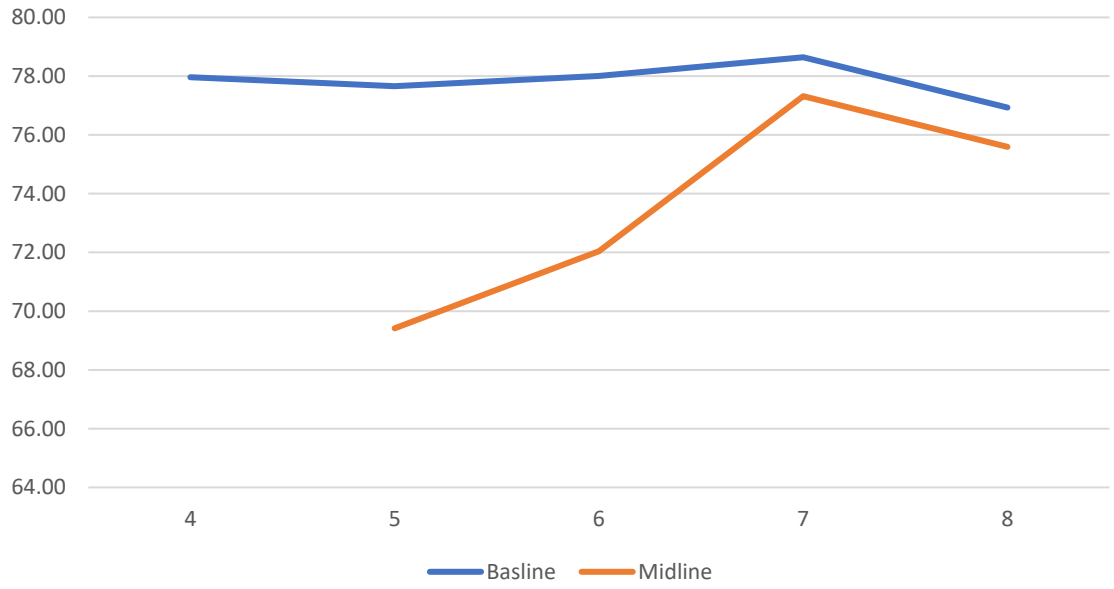
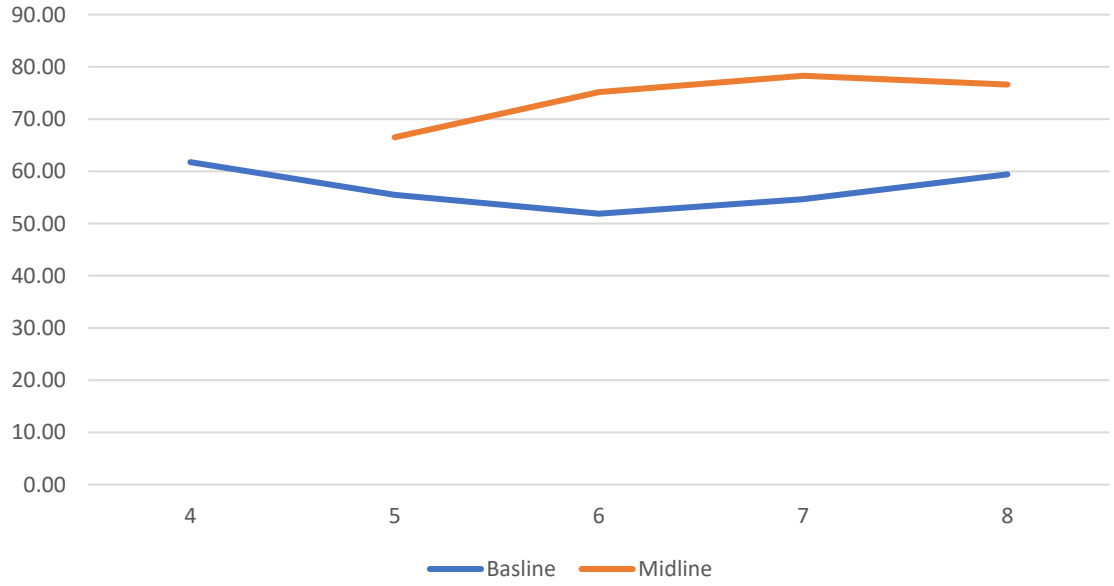
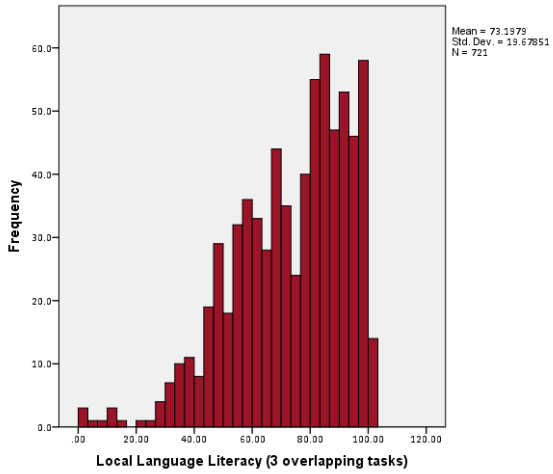


Figure 63. Basic Comprehension (mean % correct) trend comparison



To understand literacy changes overtime, we aggregated all three tasks into an overall literacy score. Distributions for both evaluation groups are shown in the figures following. For both periods and for both evaluation groups, the distribution exhibits a rightward skew which becomes more visibly at Midline.

Figure 64. Distribution of Literacy Scores Treatment Group Baseline (left) Midline (right)



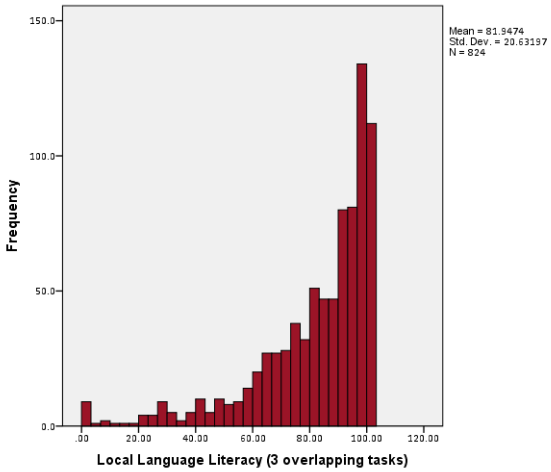
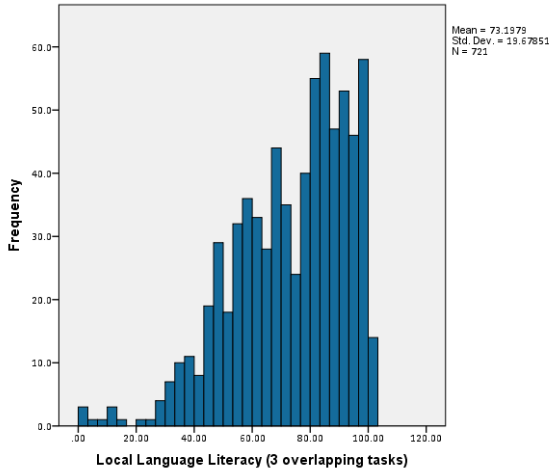
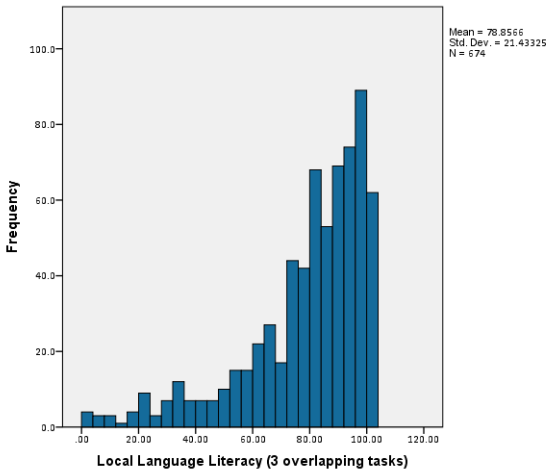


Figure 65. Distribution of Literacy Scores Control Group Baseline (left) Midline (right)





However, based on the distribution of scores there are no clear floor or ceiling effects and the measure of local language literacy is able to capture variance in the data at both periods. We would therefore recommend using this approach to aggregate literacy scores.

Reliability testing

To further understand how these measures, work when aggregated, we conducted internal consistency testing using Cronbach's alpha. Results are summarized in the table below.

To understand whether literacy testing should be in local language or combine local language and English for girls who took it (for example by following a standardized score approach) we also reviewed literacy measures combining some English literacy scores. This in fact decreased the reliability of

the literacy measure. Additionally, we would not recommend this as it reduces the utility of the measure, given that English literacy and local language literacy are two distinct constructs, targeted differently by teachers in the Ethiopian education curriculum. It would be difficult diagnostically to develop refined recommendations following a multi-language aggregate literacy score. As at Endline, these will be measured separately, we propose reporting on project impact only on local language literacy at Midline.

Measure	Cronbach's Alpha	Interpretation based on "Rule of Thumb"	Comment
Numeracy Option 1 Baseline (2 overlapping tasks)	-0.799	*Poor*	We would be open to suggestions on improving the measure keeping in mind it would change the ML aggregation approach; possibly best combination we have available- also note the internal consistency for this aggregation at Midline is acceptable –this affects control and treatment groups equally
Numeracy Option 1 Midline (2 overlapping tasks)	0.713	*Acceptable*	Fine
Local Language Literacy Baseline (3 tasks)	0.622	*Questionable*	Again this is moderately acceptable and is the only combination of tasks we have available
Local Language Literacy Midline (3 tasks)	0.771	*Acceptable*	Fine
Multi-language literacy baseline (for comparison purposes i.e. if a standardized approach was used)	0.494	*Poor*	Adding in English (SeGRA 1) decreases the internal consistency of the measure

Given the low internal consistency of various baseline measures we would suggest strongly caveating impact level findings by acknowledging these limitations.

Impact Analysis for Learning

Cohort tracking processes put in place at baseline were not robust. Baseline data collectors did not collect directions to households, contact details of parents, and in many cases the correct grade level of girls.

Additionally, different girls sat the girls survey than sat the learning assessments. The list of girls' names was predominantly based on girls who sat the girls' survey and many names for girls who sat learning tests were inaccurate or missing.

Although we aimed to preserve the composition of the cohort as far as possible, the lack of names associated with unique IDs for baseline learning data means that we will follow a cross-sectional approach to assess impact at Midline. Using various data sources it would only be possible to match 30-40% of the data at the individual level, the majority of which would be in the treatment group.

Data was therefore merged vertically (as opposed to horizontally). The cross-sectional approach consists of estimating the difference-in-differences coefficient and standard error starting from an equation in levels (aggregate levels) of the learning outcomes rather than the changes (individual changes).

Summary impact analyses results are shown in the table below and in further detail in the attached output for impact on learning.

Measure	Significance level	Beta	R squared
Numeracy Option 1	P<0.05	10.507	0.182
Numeracy Option 2	P<0.05	12.481	0.323
English Language Literacy	P<0.05	4.948	0.029

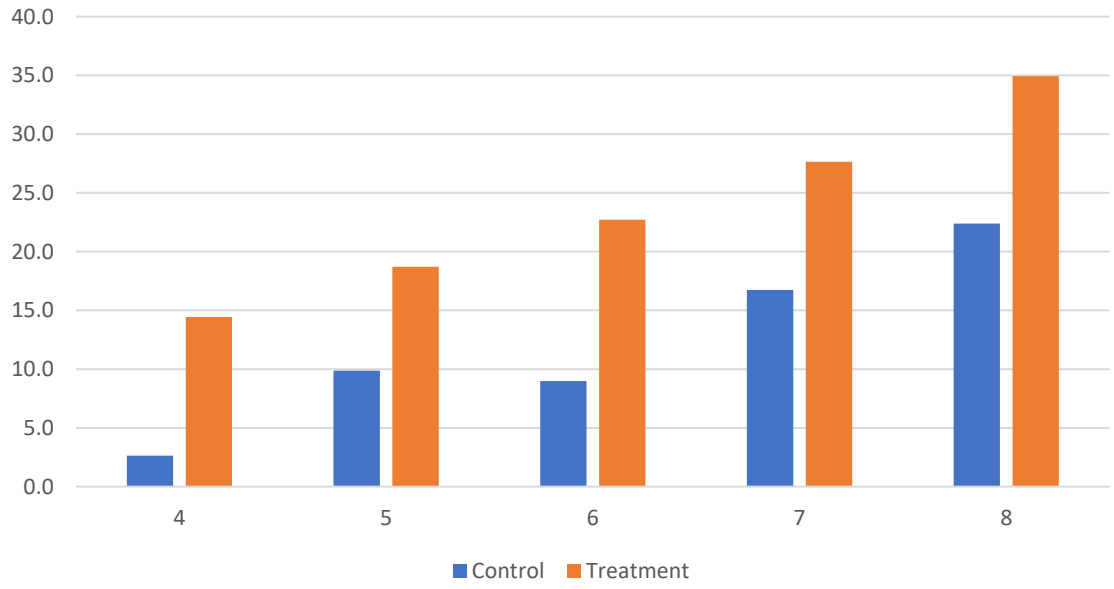
**Results controlling for grade level were also significant*

Numeracy Option 1

The interaction variable (a variable created that incorporates both the time period and treatment status → time x treatment) was a statistically significant predictor of numeracy levels (option 1) suggesting the project had a visible impact on numeracy levels between periods ($p<0.05$). The model is able to explain 18.2% of variance in the data (Beta = 10.507).

Aggregate mean comparisons suggest girls in all grades exhibited greater average improvements than their peers in the control group between periods.

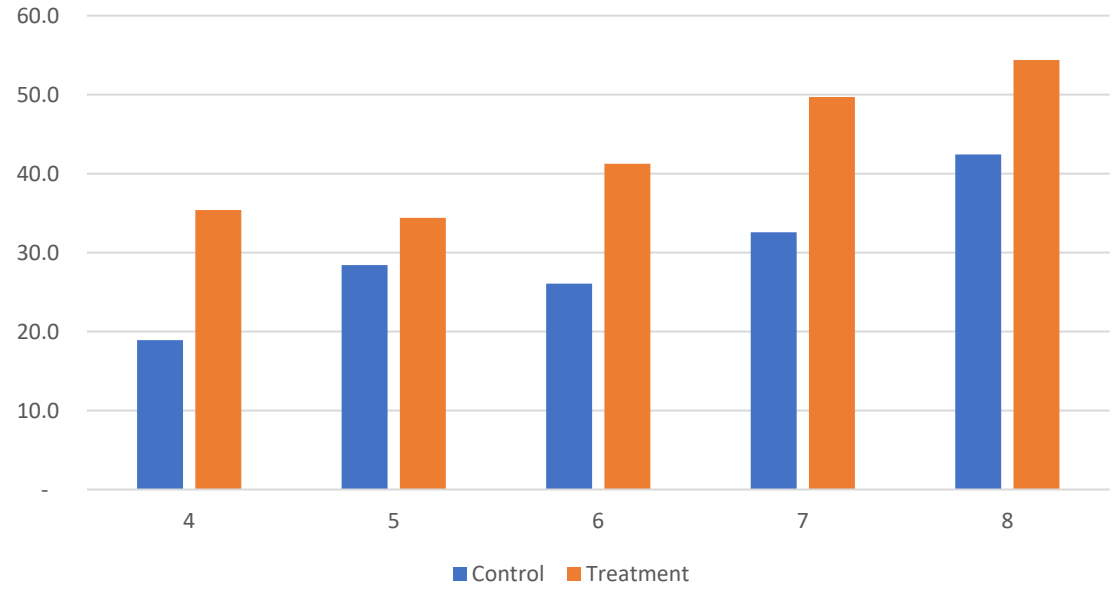
Figure 66. Numeracy Option 1 Average mean changes (cross-sectional) by "original grade level cohort"



Numeracy Option 2

The interaction variable was a statistically significant predictor of numeracy levels suggesting the project had a visible impact on numeracy levels between periods ($p<0.05$). The model is able to explain 32.3% of variance in the data (Beta = 12.48).

Figure 67. Numeracy Option 2 Average mean changes (cross-sectional) by "original grade level cohort"

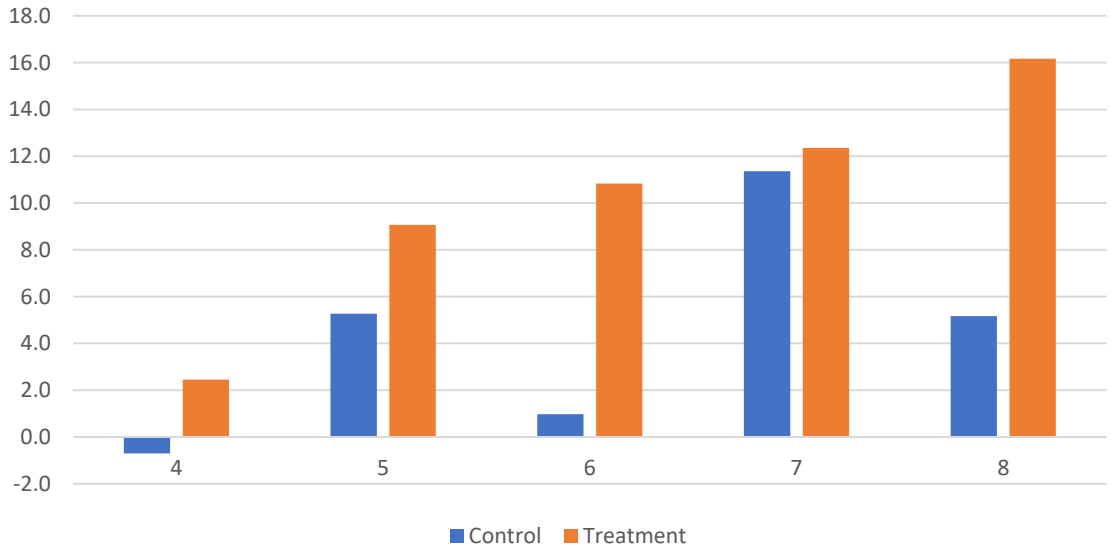


Local Language Literacy

The interaction variable was a statistically significant predictor of literacy levels suggesting the project had a visible impact on literacy between periods ($p<0.05$). The model is able to explain 2.9% of variance in the data (Beta = 4.94).

Aggregate mean comparisons suggest girls in all grades exhibited greater average improvements than their peers in the control group between periods.

Figure 68. Local Language Literacy Average mean changes (cross-sectional) by "original grade level cohort"



Annex 4. Intersection of Characteristics and Barriers

Attached as a separate excel file

Annex 5. Logframe

Submitted as a separate excel document (Annex 5. Logframe)

Annex 6. Outcome Spreadsheet

Submitted as a separate excel document (Annex 6. Outcome Spreadsheet)

Annex 7. Project Design & Intervention

Table 26: Project design and intervention

Intervention types	What is the intervention?	What output will the intervention contribute to?	What Intermediate Outcome will the intervention will contribute to and how?	How will the intervention contribute to achieving the learning, transition and sustainability outcomes?
Letter link boxes	Letter link boxes are set up primarily to deal with safeguarding incidents. Girls can post incidents, written on a piece of paper, into secured boxes that are emptied twice a week by trained focal teachers	Output 1	IO1 & indirectly IO3. Providing a safe environment enables girls to attend school. Installation of letter link boxes enables girls to report safeguarding issues and Girls' Clubs provide safe space zones where they can discuss. the challenges of inequitable gender norms and develop new shared beliefs among both boys and girls through the girls and good brother clubs	Outcome 1 By installing letter link boxes attendance will improve as the girls will feel safe(r) within the school grounds. This will have a positive impact on learning, as they will be attending school more regularly, and they will be able to concentrate on learning without the worry or distraction of harm, either from boys within the school or outside of the school. Outcome 2 Letter link boxes reassure girls safety to attend school, particularly in the most vulnerable of transition points (year 7-year 8)

				Outcome 3 – community The letter link box intervention will more regularly involve the Community Care Coalition (CCC) (in cases where referrals are made to the CCC via Kebele administration for immediate action) which supports them to take ownership of safeguarding cases. The CCCs have been selected as stakeholders within the reporting procedure as they are permanent in nature and are set up across government administrative structures down to Kebele level. This will lead to sustaining services for the intended groups in the long run. The letter link box intervention will also strengthen the PTAs (Parent and Teacher Associations) which could see their involvement if a report of harm is received by any of them. The PTAs will be supported under the auspices of the girls' clubs and will promote some of the new social norms created by the girls' clubs.
Train focal teachers to handle LLB entries		Output 1		

Train Community Coalitions (CCCs) to support child safeguarding in schools, families, and communities	Key stakeholders are trained in how to report and respond to safeguarding incidents			
Train students (boys and girls), school counsellors, principals, focal teachers, and education bureau officials to support girls sexual and reproductive health				
Sanitary corners & provision of sanitary pads	Girls can access the sanitary corner at times of menstruation so they can take rest and feel safe. Sanitary towels can also be taken from the sanitary corner.	Output 1	IO1 - providing safe spaces enables girls to attend school knowing that if they need private space within the school grounds they can have this within the sanitary corner. This has a direct link to attendance. There is also an indirect link to IO3 as in some schools there have been reports of some	Outcome 1 By setting up sanitary corners attendance will improve as the girls will be able to attend more regularly throughout the month. This will have a positive impact on learning as they are attending school more regularly.

			girls raising money to buy sanitary towels for school stock through awareness raising activities in the community.	
Set up & furnish reading corners and the purchase of books for reading corners and libraries	Girls can access the reading corners to read and borrow books. Teachers recommend the books they can read in order to better their learning outcomes	Output 1	IO 3 – indirectly Through improved learning outcomes (supported by access to reading corners and libraries) girls will feel more confident in their abilities to succeed. Taking the initiative to borrow books from the reading corners and libraries is also a sign that girls are carrying out the 'power to act' / agency / learning power, which is a key determiner of self-efficacy, showing the ability to act and exercise a degree of control over their environment and social structures	Outcome 1 By having access to books girls can improve their learning outcomes in literacy and numeracy Outcome 2 By having improved learning outcomes girls are more able to transit through each transition stage more easily. Transition to secondary school and TVET (key transition points 2 and 6) will be strengthened by the reading corners and libraries installed in secondary schools. Also transition to the upper grades will be further reinforced through access to libraries

Train CCCs in safeguarding	The training of CCCs is designed to support the Letter link box intervention. The referral of cases to CCCs will be handled within the CH-CHADET's safeguarding guidelines, so that incidents of abuse, exploitation and harrassment can be dealt with quickly and efficiently.	Output 1	IO1 - Training the CCCs enables a safe environment that enables girls to attend school.	Outcome 1 By training the CCCs the reporting of cases identified through the letter link box intervention will have a positive impact on attendance as the girls will feel safe(r) within the school grounds. This will have a positive impact on learning, as they will be attending school more regularly, and they will be able to concentrate on learning without the worry or distraction of harm, either from boys within the school or outside of the school. Outcome 2 By following through referrals within the guidelines, girls are reassured to attend school safely, particularly in the most vulnerable of transition points (year 7-year 8) Outcome 3 – community The letter link box intervention will involve more regularly CCC (in cases

				where referrals are made to the CCC via Kebele administration for immediate action) which supports them to take ownership of safeguarding cases. Training of the CCCs is therefore required. The CCCs have been selected as stakeholders within the reporting procedure as they are permanent in nature and are set up across government administrative structures down to Kebele level. This will lead to sustaining services for the intended groups in the long run.
Training school counsellors, principals, focal teachers and education bureau officials in SRH	School counsellors, principles, focal teachers and education bureau officials are trained in supporting sexual and reproductive health in girls	Output 1	IO1 – this directly links to attendance by offering guidance to address any worries in relation to SRH, giving SRH information and services to prevent STIs and unwanted pregnancies, while working to break down the barriers faced by pregnant school girls and young mothers. The girls are guided through key transition stages which improves student retention rates.	Outcome 1 Where girls are guided through transition stages they are more able to stay in education and achieve their potential.

Tracking and helping girls to resume school	Through working with community workers, key community members and families, the project supports teams to track girls that are at risk of drop-out in order to resume learning.	Output 1	IO1 – this directly links to attendance. The project has provided a definition of drop out so that it can identify girls at risk of drop out and take relevant measures to prevent drop out.	Outcome 1 Where there is more regular attendance, learning outcomes will improve.
Set up ICT labs in primary & secondary schools	ICT labs are set up to support girls in developing their literacy and numeracy skills		IO3	Outcome 1 Improved subject knowledge and mastery contributes to improved learning outcomes
Provide assistive devices to girls with disabilities (GWD)	GWD are provided with assistive devices, e.g. glasses and braille kits		IO1 – directly links to attendance as GWD will feel enabled to better participate in class.	Outcome 1 – increased attendance and participation will result in improved learning for GWD. Outcome 2 – increased attendance and improved learning will result in higher transition rates for GWD.
Accommodation fees paid	Secondary School Girls are supported by the cost of accommodation being covered by the project		IO1 - by being able to access learning (by living nearby the secondary school) attendance rates will be improved. By supporting the girls with fees, the barriers to transition are	Outcome 1, outcome 2 Where attendance is improved the girls are able to improve their learning outcomes. Transition rates will improve where girls have been able to access school (due to living nearby).

			removed. Secondary school is an enabler of transition into upper secondary, higher education or TVET. This point of transition will support the progression to appropriate courses, as well as settling into college, work or university life, and allow them to succeed as higher education learners or business start-ups.	
(Access) transport to Sexual Health and Reproduction Services (SHRS)	Girls are supported by the cost of transport to SHRS being covered by the project		IO1 – this directly links to attendance. By being able to access SHRS, giving SHR girls are able to learn more about how to prevent STIs and unwanted pregnancies. They are also guided through key transition	Outcome 1 Where girls are guided through transition stages they are more able to stay in education and achieve their potential.

			stages which improves student retention rates.	
School uniform provided - primary and secondary	Girls are supported by the cost of school uniform being covered by the project		IO 1 By lifting the additional education costs girls are able to attend school	Outcome 1 By lifting the additional education costs girls are able to attend school and work towards improving their learning outcomes
Books/scholastic materials provided	Girls are supported by the cost of scholastic material being covered by the project		IO 1 By lifting the additional education costs girls are able to attend school	Outcome 1 By lifting the additional education costs girls are able to attend school and work towards improving their learning outcomes
Support secondary schools to organize summer transition camps	Girls are supported in the transition phase from primary to secondary through the attendance of summer secondary school preparation camps		IO1, IO3	Outcome 2, supports the girls during transition from primary to secondary, contributing to an increase in transition rates.
Reward high performing girls, including GWD	High performing girls are rewarded as an incentive		IO3 - indirectly Girls are empowered to succeed through recognition for hard work and success. Girls with disabilities are included in the award scheme to embrace a culture of diversity.	Outcome 1 By supporting success, girls are more motivated to achieve. Outcome 2 By having improved learning outcomes, girls are more able to transit through each transition stage more easily. Transition to secondary school and TVET (key transition point 2) will be

				strengthened by progression in literacy and math.
Teacher training and CPD	Teachers are trained and supported in delivering improved pedagogy, gender-sensitive teaching, improved literacy and numeracy instruction and inclusive teaching strategies		IO2 - by increasing the percentage of teachers who improve their teaching through improved pedagogies and methodologies. Indirectly will support IO1 and IO3. IO1 - Evidence suggests that increasing in-year achievement and the associated rise in self-esteem and efficacy through better pedagogies will increase attendance; by developing an instructional model that focuses on high-quality teaching and learning, and classes that are stimulating and organised, student engagement will be supported and attendance raised. In addition, developing class and in-class group structures	Outcome 1 & Outcome 3

			that enable increased connectedness to individual teachers and peers, will further increase attendance IO3 - Better pedagogic techniques and understanding will raise the ability of the girls within the project to be successful within the maths and literacy setting, which leads to greater self-esteem and self-efficacy relating to academic achievement (Chan, 2000)	
Education officers, Woreda education specialists and lead teachers are trained to carry out lesson observations	Lesson observations for reporting purposes and peer lesson observations feed into professional development	Output 3	IO2 Through supporting the Zonal level education departments to build capacity with teachers that is directly linked to practice, change is ongoing and school owned.	Outcome 1 Learning outcomes are improved where teacher quality is improved. The work that cluster supervisors carry out with teachers is intended to develop not only teaching strategies and subject knowledge of teachers, but also to shift the mindset of the teachers to embrace a student-centered approach to learning. Outcome 3 – school (teacher quality) - education departments develop

				stronger capacity to implement the most vital elements of teacher development and tracking of learning outcomes. Through training government staff and sharing technical and human resources with education departments capacity can be developed from within school and local system level.
Trained teachers are peer coached through communities of practice	GEC-T teachers are coached and mentored as part of ongoing professional development in order to improve the standard of lesson delivery. Trained secondary school teachers will act as coaches through carrying out lesson observations and coaching activities after each lesson observation. Internal coaching/mentoring communities of practice are vehicle through which coaching and mentoring will happen, where peer observations will take place on a continuous basis.		Will directly support IO2 by increasing the percentage of teachers who improve their teaching through improved pedagogies and methodologies Will support the teacher training intervention (see below) and will support and maintain better pedagogic activities from the teachers. Indirectly will support IO1 and IO3 The Coaching and Mentoring strategy is intrinsically inked to the training	Outcome 1, Outcome 3

Run maths and literacy homework clubs	Homework clubs are run in literacy and maths to improve the level of attainment. Girls, of differing levels, are selected to participate, namely girls who have performed lower in the previous year. Girls are given pre-assessments to identify their levels of learning to see if they qualify for homework tutorial support		This indirectly links to IO 3, Girls are able to concentrate on mastery in each subject which boosts confidence and drives the girls' perception of their ability to succeed academically.	Outcome 1 Improved teacher pedagogy contributes to improved learning outcomes
Family Hubs	Family hubs operate at community level where parents, community elders and other key community stakeholders discuss issues and barriers to education ranging from safety to early marriage	Output 4	IO1 – attendance. Discussions around the barriers such as high level of domestic chores, safety on the way to school impact on attendance.	Outcome 3 – community sustainability
Strengthen the Girls' and Good Brothers' clubs	The Girls' and Good Brothers' clubs take place, led by trained focal teachers includes creating space for both girls and boys to discuss some of the persistent issues that girls face, which have emerged from learning to date – including sexual harassment and sexualisation of girls, boys' resentment, the persistent burden of heavy domestic labour, hygiene, poverty and sexual and reproductive health, and the educational challenges faced by children with		IO 3 Raised self-esteem and self-efficacy empower girls to negotiate their journey and transition through different levels at school.	Links to outcome 2 Links to outcome 1 – There is a link between self-efficacy and achievement as self-efficacy contributes toward academic performance. How capable you believe you are is a determining factor to success. By challenging inequalities girls are given the opportunity to succeed in learning. The inequalities that exist

	disabilities. Girls are also upskilled to deal with early marriage proposals, sexual violence and gender-related incidents. Child rights and safeguarding are also covered.			between girls and boys affect their educational opportunities and outcomes at every level. The traditional expectations and norms around girls' choices and behaviour determine whether or not girls are even able to access the classroom in the first place and limit the time they are able to dedicate to learning. Their level of participation and confidence they have in learning can also be undermined. The norms and expected behaviours also influence the perceived value of girls' education among others. As girls get older, the gendered norms that they are under pressure to conform to become more pronounced and the opportunities they have to learn often diminish.
Perform theatre and drama to change social norms	Theatre and drama performances showcase in different schools to raise awareness in inequalities related to gender and disabilities		IO 3	Outcome 3
Produce advocacy and communications materials targeting negative parent, caregiver, and	Advocacy and communications materials are produced by Girls' Clubs addressing negative attitudes and behaviours towards girls' education and disability		IO1 - advocacy and communications materials encourage families to send girls to school	Indirectly outcome 1

community member attitudes and behaviours towards girls' education			so boosting attendance. IO3 – Girls feel empowered by seeing their messages around the community and the impact the messages have on attendance.	
Train peer leaders in life skills peer education	Peer leaders in Girls' Clubs trained as peer educators in life skills for other girls	Output 4	IO3 – Girls empowered through training in new skills and subsequently empower other girls through peer education	Outcome 1 – increase girls learning
Support enrolment, registration fee, tuition fees of girls into vocational school	Girls are supported by the cost of tuition being covered by the project	Output 5	IO1, IO3 By supporting the girls with fees the barriers to transition are removed. TVET is an enabler of transition into paid work and transition into adulthood.	
Cover the cost of accommodation	Where girls are living away from home the cost of accommodation is covered		IO 3 By supporting the girls with fees, the barriers to transition are removed. TVET is an	

			enabler of transition into working life.	
Cover the cost of education supplies	Girls receive the required training material for their TVET course		IO 3 By covering the cost of education supplies, the barriers to transition are removed. TVET is an enabler of transition into working life.	
Provide training on employability soft skills including ICT, self-introduction, CV preparation & 'softer' skills - interviewing, work place conduct	Girls access training so they are job/market ready		IO 3 Through providing training on employability, the girls are supported in the transition from learning into working life.	Outcome 2 Key transition point 5: Primary to Non-Formal Vocational or Technical or Employment Key transition point 6: Lower Secondary to Formal Vocational or Technical or Employment: Girls will be provided high quality information, advice and guidance on choice of courses, and options for part-time and short-term experience. The project will make stronger linkages with markets and private sector. Girls will be provided information on opportunities for start-up support.
Link girls with employment referral service for private sector	Girls are linked to employers in their area of specialism			
Cover the cost of COC for girls who complete TVET	Girls require the COC as certification that they have graduated.			

Support girls to set up livelihood schemes	Girls are supported in setting up joint businesses and savings groups.			
(Access) transport to TVET	The cost of transport to school is covered by the project		IO1 - by being able to access learning attendance rates will be improved. By supporting the girls with transport fees the barriers to transition are removed. TVET is an enabler of transition into paid work and transition into adulthood.	Outcome 1, outcome 2 Where attendance is improved the girls are able to improve their learning outcomes. Transition rates will improve where girls have been able to access school.

Annex 8. Key findings on Output Indicators

Table 44: Output indicators

Logframe Output Indicator	Means of verification/sources	Collection frequency
Number and Indicator wording	List all sources used.	E.g. monthly, quarterly, annually. NB: For indicators without data collection to date, please indicate when data collection will take place.
Output 1: Safer and stimulating learning environment for girls – crucial activities:		
Output 1.1: wording	% of girls reporting that they feel safe in school (yes/no) Letter Link Boxes, Girls' survey (BL, ML, EL)	Weekly, (each external evaluation point)
Output 1.2: wording	% of girls at primary school who report accessing reading corners in the last month, or intend to use reading corners in the next two weeks Girl's survey (BL, ML, EL)	Yearly (each external evaluation point)
Output 2: Provide transition costs (financial, materials and physiological)		
Output 2.1:	% of girls receiving transition cost support (tuition fees and accommodation) and then transition into the next stage of appropriate education, (i.e. TVE, secondary education, high school) 1) Database transition data for G6, 8, 10, 12 milestone grades only (include milestones that include transition points in old and new Edu policy), 2) Comparing the difference in transition rate between non-supported group and supported group.	Yearly
Output 2.2:	% of girls who receive scholastic materials who have completed primary/secondary education at the end of the project 1) Database transition data for G6, 8, 10, 12 milestone grades only (include milestones that include transition points in old and new Edu policy), 2) Comparing the difference in transition rate between non-supported group and supported group.	Yearly

Output 2.3:	% of eligible girls receiving academic support (homework support) who transitioned to secondary education 1) Database transition data for G6, 8, 10, 12 milestone grades only (include milestones that include transition points in old and new Edu policy), 2) Comparing the difference in transition rate between non-supported group and supported group.	Yearly
Output 3: Improved quality of teaching		
Output 3.1:	No. of teachers trained by project In-school data, Attendance records	Bi-annually, yearly (in sync with training cycles)
Output 3.2:	The number of teachers who receive support through CoPs In-school data, Attendance records	Quarterly – bi-annually
Output 3.3:	The number of CoPs operating in schools In-school data	Quarterly – bi-annually
Output 4: More confident girls with values, skills and challenged norms		
Output 4.1:	% of attendance of members to girls' clubs, In-school data, Attendance records, Girls' survey	Yearly, (each external evaluation point – Girls' survey), internal data
Output 4.2:	No of school and community events held In-school data	Bi-annually
Output 5: Girls who choose vocational education or independent adulthood develop employability skills		
Output 5.1:	% of girls who are offered TVET support and accept it Lists of support required, TVET enrolment list, List of sponsorship support for TVET,	Annually
Output 5.2:	% of girls still attending TVET who complete COC at the end of every year (where appropriate) CoC completion list, attendance and course completion lists	Annually
Output 5.3:	of girls who go into work or start their own business (where appropriate)	Annually

	List of girls that receive cash or asset transfer, list of girls that start their own business	

Report on the midline values/midline status of each Output Indicator in the table below. Reflect on the relevancy of the Output Indicator for your Intermediate Outcomes and Outcomes and the wider Theory of Change based on the data collected so far. Are the indicators measuring the right things? What do the midline values/midline status mean for the implementation of your activities?

Table 458: Midline status of output indicators

List all issues with the means of verification/sources or the frequency of data collection which require changes or additions.

Overall progress against output & successes				
Output 1: Safer and stimulating learning environment for girls – crucial activities:	1.1 % of girls reporting that they feel safe in school (yes/no)	BL 96.8% (in HHS, GS)	ML target 96.8%	EL target
			ML 96.4%	
	1.2 % of girls at primary school who report accessing reading corners in the last month, or intend to use reading corners in the next two weeks	BL 93.03% (HHS, GS)	ML target 93.05%	
			ML 49.4% (-43.63)	
Output 2: Provide transition costs (financial, materials and physiological)	2.1 % of girls receiving transition cost support (tuition fees and accommodation) and then transition	BL 22.91%	ML target 27.83%	EL target
			ML 28.12%	

	into the next stage of appropriate education, (i.e., TVE, secondary education, high school)			
	2.2 % of girls who receive scholastic materials who have completed primary/secondary education at the end of the project	BL 83.05%	ML target 85%	
			ML 88%	
	2.3 % of eligible girls receiving academic support (homework support) who transitioned to secondary education	BL 86.32%	ML target 87.0%	
			88.8%	
Output 3: Improved quality of teaching	3.1 No. of teachers trained by project	BL 518	ML target 430	EL Target
			ML 436	
	3.2 The number of teachers who receive support	BL N/A (CoPS not started)	ML target 430	
			ML 442	

	through CoPs			
	3.3 The number of CoPs operating in schools	BL N/A as we were only just setting up CoPs	ML target 100	
			ML 105	
Output 4: More confident girls with values, skills and challenged norms	4.1 (i)% of attend-ance of members to girls clubs, (ii) No of school and com-munity events held	BL 50.19%, 55 events,	ML target a) 52% b) 30 events	EL Target
			ML a) 55.70% b) 31 events	
Output 5: Girls who choose vocational education or inde-pendent adulthood develop employa-bility skills	5.1 % of girls who are of-fered TVET sup-port and accept it	BL 269 girls	ML target 68.2%	EL target
			ML 81.2%	
	5.2 % of girls still attending TVET who complete COC at the end of every year (where appropri-ate)	BL 4.1%	ML target 7.5%	
			ML 11.82%	
	5.3 % of girls who go into work or start their own busi-ness (where appropri-ate)	BL No data	ML target 70.%	
			ML 73.46%	

Table 46: Output indicator issues

Log-frame Output	Indicator	Issues with the means of verification/sources and the collection frequency, or the indicator in general?	Changes/additions
Safer and stimulating learning environment for girls			
Output 1.1: wording	% of girls reporting that they feel safe in school (yes/no)	Triangulation needed using an extra qualitative, internal tool. LLB cases mainly report incidents, not anxiety around safety, fear or observations of others' safety	New qualitative, participatory tool under development
Output 1.2: wording	% of girls at primary school who report accessing reading corners in the last month, or intend to use reading corners in the next two weeks		
Output 2: Provide transition costs (financial, materials and physiological)			
Output 2.1:	% of girls receiving transition cost support (tuition fees and accommodation) and then transition into the next stage of appropriate education, (i.e. TVE, secondary education, high school)		
Output 2.2:	% of girls who receive scholastic materials who have completed primary/secondary education at the end of the project		
Output 2.3:	% of eligible girls receiving academic support (homework support) who transitioned to secondary education		
Output 3: Improved quality of teaching			
Output 3.1:	No. of teachers trained by project		
Output 3.2:	The number of teachers who receive support through CoPs		

Output 3.3:	The number of CoPs operating in schools		
Output 4: More confident girls with values, skills and challenged norms			
Output 4.1:	% of attendance of members to girls' clubs	How girls feel about their attendance to the girls' clubs and life skills curriculum content is not measured	New qualitative, participatory tool under development
Output 4.2:	No of school and community events held		
Output 5: Girls who choose vocational education or independent adulthood develop employability skills			
Output 5.1:	% of girls who are offered TVET support and accept it		
Output 5.2:	% of girls still attending TVET who complete COC at the end of every year (where appropriate)		
Output 5.3:	of girls who go into work or start their own business (where appropriate)		

Annex 9. Beneficiary Tables

Table: 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.	[This should align with the total beneficiary numbers reported in the outcomes spreadsheet] Difficulty in ing, writing & ing maths Physical disabil Intellectual diff Hearing impair Visual impairm Language and munication pro Attention and peractivity Total	[This may equal the total project number in the outcomes spreadsheet and in the column to the left, or may be less if you have a staggered approach]	[Projects should provide additional information on who they are and the methodology used. If the numbers have changed since Baseline, an explanation should be provided]
Marginalised girls – Consisting of ….	16,481	Approach is not staggered The current number of beneficiaries, as of Dec 2019 is …. (waiting for update from M&E co-ordinator CHADET)	The project uses its own database to store the number of beneficiaries. Attendance records collected in schools via physical head count collected in-class by teachers and checked biannually by CHADET staff for accuracy. An additional 2,153 replacement girls were selected in October 2018 to bring the total number of girls back to the targeted amount (as these girls were lost at the start of GEC-T due to delayed funds reaching Methodology used is monthly recording of attendance data that is inserted into the

			database after collection Project staff monitor at risk of drop out categories (within the month) outside of the monthly database input, and connect with project, school and community staff to intervene with the girl and family members where they see risk of drop out. In our Q7 report we have logged this under 'track and help truant girls to resume school' intervention. Below is an example of this activity, that impacts on attendance rates. From the original figure of 16,481 girls, at the start of GEC-T we had 14,328 beneficiaries as 2153 dropped from GEC-1 to GEC-T. These were replaced in October 2018. See SOP attached & definition of drop out
Primary school girls	11,601 (baseline) 9,861 (midline) Dec 2019		Based on Dec 2019 figures
Secondary school girls	2,851 (baseline) 4064 (midline) Dec 2019		
Girls in alternative institutions – Colleges/TVET Universities	307 (baseline) 707 (midline) Dec 2019		
Out-of-school girls that have enrolled into alternatives. (are attending education in non target	0 (baseline) 1288 (midline) Dec 2019		

schools – slightly different to the descriptor above)			

Table: Other beneficiaries – waiting for info from Chala

Beneficiary type	Number	Comments
Learning beneficiaries (boys) – as above, but specifically counting boys who will get the same exposure and therefore be expected to also achieve learning gains, if applicable.	0	Boys do not benefit from GEC-T learning interventions.
Broader student beneficiaries (boys) – boys who will benefit from the interventions in a less direct way, and therefore may benefit from aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.	3,362 (at baseline), although this may be more as those 3,362 boys may influence their peers who are not actively involved. 42,528 Midline	Boys attending boys' clubs. Boys do not have the same exposure as girls but are impacted by the attitudinal changes in GEC-T girls, Teaching staff, school staff (including leadership staff), community workers all impact on attitudinal changes in boys. It is not sufficient to say that all school boys will be impacted directly and is not evidenced throughout the programme.
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.	Total of girls in GEC targeted schools, including those that are not in the program (assuming non-program girls benefit indirectly) This totals to 51,139 (34,658 are indirect beneficiaries) – from baseline 28,553 (Midline)	Non-GEC girls, who do not partake in GEC-T interventions are impacted by the attitudinal change in GEC-T girls. It is not sufficient to say that all school girls will be affected, and is not evidenced throughout the programme.
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.	Direct training - Women: 167 (baseline) (Midline) trained women 308. Direct training – Men: 315 (Baseline) (Midline) 637	
Broader community beneficiaries (adults) – adults who benefit from broader interventions, such as community messaging /dialogues, community advocacy, economic empowerment interventions, etc.	Unknown It's expected that all GEC communities are affected. Arsi – 20 communities South Gondar – 35 communities South Wollo – 28 communities	Although all communities in connection with schools will be affected by targeted messaging, drama and theatre awareness raising, home based conversations

	Midline: same as above	

- Tables 32-35 provide different ways of defining and identifying the project's target groups. They each refer to the same total number of girls, but use different definitions and categories. These are girls who can be counted and have regular involvement with project activities.
- The total number of girls in the last row of Tables 32-35 should be the same – these are just different ways of identifying and describing the girls included in the sample.

Table 47: Target groups - by school

School Age	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Lower primary	Grade 1 – grade 4 Age 7 – 10	2407 (baseline) Midline 1234	
Upper primary	Grade 5 – grade 8 Age 11 – 14	9194 (baseline) Midline 8852	
Lower secondary	Grade 9 – grade 10 Age 15 – 16	2252 (baseline) Midline 2933	
Upper secondary	Grade 11 – Grade 12 Age 17 – 18	599 (baseline) Midline 1224	
Total:		ML 14,243	[This number should be the same across Tables 32-35]

Table 33 (see table below table 33, can this be inserted in any way?)

Age Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Aged 6-8 (% aged 6-8)	✔	337 (baseline) ..... midline?	
Aged 9-11 (% aged 9-11)	✔	4641 (baseline) ..... midline?	
Aged 12-13 (% aged 12-13)	✔	4732 (baseline) ..... midline?	
Aged 14-15 (% aged 14-15)	✔	3139 (baseline) ..... midline?	
Aged 16-17 (%aged 16-17)	✔	1020 (baseline) ..... midline?	

Aged 18-19 (%aged 18-19)	✔	264	
Aged 20+ (% aged 20 and over)		Not reported to me as any over 20s	
Total:			[This number should be the same across Tables 32-35]

GEC-T data of target girls by grade and age				
S/N	Grade	Age	Quantity	Remark
1	5	10 to 19	2,122	
2	6	12 to 19	2,583	
3	7	13 to 19	2,583	
4	8	14 to 22	2,261	
5	9	15 to 22	1,850	
6	10	16 to 22	1,315	
7	11	17 to 22	636	
8	12	19 to 24	451	
Total		10 to 24	13,801	

Table 48: Target groups - by sub group

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Disabled girls (please disaggregate by domain of difficulty)	✔	500 (baseline) … ML 305	
Orphaned girls		0	
Pastoralist girls	✔	14711 (baseline) – this is an error. 0	
Child labourers		0	
Poor girls	✔	16,481 (baseline) Midline 16481	

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Other (please describe) Consider early marriage Any other category?	✔	1,265 (early marriage at baseline) … Midline?	
Total:			[This number should be the same across Tables 32-35]

Table 49: Target groups - by school status

Educational sub-groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Out-of-school girls: have never attended school			
Out-of-school girls: have attended school, but dropped out		ML 1265	
Girls in-school	✔	16481 ML 1521	
Total:			[This number should be the same across Tables 32-35]

Once the project has provided information as per the guidance box and tables 30-35 above, the External Evaluator must:

- Review the numbers and methodology proposed by the project. Comment on the counting methodology, the assumptions that are made, the expected quality of the data underpinning the final numbers (e.g., project own monitoring data and government data).
- Was data collected, e.g., in the school survey, that enables to verify any of the assumptions made by the project in calculating the beneficiary numbers? Examples of such data would be: size and number of communities, size and number of schools, size and number of classrooms, size and numbers of girls clubs, number of disabled girls, number of girls at risk of dropping from school, dropouts in the last year etc. Present any of these data and compare them with the project. monitoring data. You can use the sample data collected and presented in Annex 3 to elaborate.
- When the available evidence is considered, do the proposed beneficiary numbers look reliable? Why yes or why not?

Table 36: Beneficiaries matrix

Outcomes	Direct beneficiaries			Indirect beneficiaries				
	In-school girls (6-10 grade)	OSG (6-9 years)	OSG (18-25)	In-school boys	HT/ Teachers	Parents	SMC/ PTA	Local gov-ern-ment
Learning	✔	✔		✔	✔	✔		
Transition	✔	✔						
Sustainability	✔	✔		✔	✔	✔	?	✔
IO 1: Attend-ance	✔	✔						✔
IO 2: Quality of teaching	✔	✔		✔	✔			✔
IO3: Self-es-teem and em-powerment	✔	✔				✔		
IO4: Social norm shift	✔	✔		✔	✔	✔	?	✔

Annex 10. MEL Framework

Attached as separate file

Annex 10 MEL Framework.docx

Annex 11. Evaluation Inception Report

Attached as separate file

Annex 11 -GEC-T ChildHope Midline Inc

Annex 12. Data Collection tools used for Midline

Submitted as a separate zip folder

Annex 13. Dataset & Replication Materials

Folder submitted to PwC SharePoint

Annex 14. Learning Pilot

Piloting of the learning tests was conducted at Baseline by the previous evaluator. Due to changes in the test design test will need to be piloted and calibrated prior to the endline.

Annex 15. Sampling Framework

Attached as separate file

Annex 15 Sampling framework - created (

Annex 16. External Evaluator's Declaration

Singed declaration submitted to PwC SharePoint

Annex 17. Project Management Response

Annex 17. Project Management Respon

Annex 18. Teacher Survey Results

Annex 18 Teacher Survey Results.docx

Annex 17. Project Management Response

Response - Recommendations

Each recommendation is responded to alongside any changes or adaptations the project feel are necessary for the duration of GEC-T. There are two responses available:
Changes and adaptations are minor and linked through to the assumptions in the TOC (in findings doc).

Response 1 – strictly to the midline recommendations, outside of COVID19
Response 2 – our response to the midline findings, in light of COVID19

Sexual assault on way to school	**Response 1**	**Response 2 (COVID19)**
1. (i) Girls report in qualitative sessions they're concerned about sexual assault, esp. on the way to and from school. (ii) Girls who live further away from school are <u>three times more likely</u> to not feel safe traveling to school. The project has established buddy systems to support girls to travel in pairs or groups but **Rec A: Should consider what additional activities can be put in place to support girls who fear the journey. Safety mechanisms at the community level may support girls to feel safer traveling.**	**Rec A:** The project agrees that this is a good recommendation and will consider the different activities to support girls en route to and from school. **Needs analysis:** Problems between Kebeles have already started to be identified, such as Garaselan Primary School (Tero Desta KA) and Dera # 2 Kebele in Arsi, Tara Gedam and Dengors South Gonder **Communication strategy across Kebeles:** We am to built consensus among the adjacent Kebeles so that joint action is taken on safety issues **Buddy System:** The project have already started a buddy system in some schools but this is not uniform across the project. **Family hubs:** Family hubs operate in particularly vulnerable areas and are linked through to areas of need. They will continue as GEC-T girls prefer the hub type forum as it allows them to discuss more sensitive subjects outside the home, for example, early marriage or fear of abuse, harassment, or abduction on the way to school. Through Hub discussion parents also have a	Strategies to improve safety to and from school can only be considered when school resumes. **Buddy system:** The buddy system we have already had in place will need to be reconsidered in line with our advice to girls on social distancing as part of a revised COVID19 context analysis **Family hubs:** The size of Family Hub meetings may have to be reduced to meet with government social distancing and group size guidelines, which currently limit groups to four persons. We would then expect meeting participants to cascade any agreed actions. Meeting sizes will increase as government restrictions are relaxed.

	role in jointly identifying a solution acceptable to all. **Changes and adaptations:** (i) Further work is to take place to ensure all girls and good brother' clubs have a buddy system and orientation to a buddy system in place (strengthening assumptions 5,7, 12 etc), (ii) The Life Skills curriculum content is to be reviewed to include content specific to supporting girls' safety to and from school (strengthening assumption 20).	
Corporal punishment 2. (i) 9.6% of girls have been punished physically by a teacher in the week before the interview. (ii) 25.8% of girls have witnessed a teacher physically punish recently on a student. (iii) Qualitative and quantitative evidence suggests teachers' views on the subject are entrenched. Corporal punishment has a direct negative effect on local language oral reading fluency and self-esteem at statistically significant levels. **Rec B: Should consider how it can engage a wider range of stakeholders, including government, CSOs, principals, and others in supporting behaviour change.** **Rec C: Should consider how we can better support teachers and schools to adopt restorative or positive discipline practices instead of corporal punishment.**	**Rec B & C:** The project agrees that these are good recommendations. **Training at school level:** A school-system wide initiative has been kick started following receipt of the initial findings from midline data in December 2019. The project immediately responded with a refresher leadership and management training activity for school principals addressing the negative impact of corporal punishment and promoting alternative positive disciplinary methods so that all school staff would be in line with the same approach. The first refresher training activity took place in Arsi in March prior to the introduction of government restrictions on group activities. **Engagement of school boards and CCCs – school-community-system level:** The project has been engaging school communities, CCCs/school boards and education offices to support further buy-in. Women and the children affairs office, alongside other NGOs who are working on safeguarding will also be included.	Similar refresher training will happen in South Gonder and South Wollo once the government restrictions on group activities have been eased but will be incorporated with the training on revision pedagogy and PSS (psycho social support). The leadership and management refresher training cannot go ahead until government restrictions on group sizes are relaxed. The workshops on leadership including corporal punishment will be reintroduced when the schools return and as part of the return to school training Workshops may resume (depending on social distancing rules) – interaction and spacing will be considered as part of the new format.

	Rec C: Further work is to take place with school leadership teams and teachers through CoPs. **Proposed changes and adaptations:** **Rec B:** Further engagement with Woredas and local government is planned such as engaging Woreda and Zonal Education Bureau officers in dialogue and training. This will also include involving the opinion of leaders toward contributing to the change of behaviour. An engagement conversation map will be drawn up to structure discussions and monitor progress. This further work links to assumptions 16 and 30.	
Households facing economic hardship 3. There is a wide range of barriers that intersect with living in a household that are facing economic hardship and where the head of household is unemployed.. Girls in these households are more likely to (i) have parents who punish them physically at home, (ii) to report that there are not enough seats for all students, (iii) to not use lunch spaces (could be because they don't have lunch), (iv) to not know a method of contraception, (v) to have teachers who are often absent at school, and (vi) to report that they cannot decide whether to stay in school (have to accepted what is decided by others). **Rec D: Should consider how we can leverage/pull in additional investment, or identify partners that can engage parents in livelihood activities so that the negative effect of economic hardship on educational**	**Rec D:** The project agrees that this is a good recommendation. Further exploration will take place to engage livelihood focused NGOs to include project Woredas in their work. Further work on expanding funding opportunities will also take place. The project will develop criteria to include the most needed category of family to be engaged in income generation activity to link through to external support.	The project has introduced training in small business and financial management for 90 mothers from Female Headed Households (FHH). The training aims to reinforce their livelihoods and the health and well- being of their families. In the process of gathering information and inputs to the design of the medium term response, it became clear that mothers from FHH were in an increasingly vulnerable position because their livelihoods which depended on the sale of agricultural produce or food preparation were severely affected by the social distancing and travel restrictions imposed by the government as well as fear of infecting their family. To mitigate their economic vulnerability and make their livelihoods more resilient to economic shocks, the project will provide training on small

outcomes, and the increased vulnerability these girls face can be reduced.		business and financial management for the mothers and will provide a small bursary to help restart their business.
Numeracy curriculum too demanding 4. The numeracy curriculum is too demanding for girls in grades 5-10 (a minority of girls in these grade levels meet curriculum expectations). **Rec E: Should consult other education sector stakeholders to compare results and consider approaching the MoE to advocate for curriculum reforms to meet girls at their current levels and give appropriate support to teachers in curriculum delivery.**	**Rec E:** The project partly agrees that this is a good recommendation. The project is aware that work is already taking place at national level to discuss the nature and content of the Ethiopian curriculum as part of the school reform process and ESDP. However advocating for curriculum reforms is beyond the project scope. **Proposed changes and adaptations:** Further work will need to take place at national level, in collaboration with other NGOs that could feed into GEQIP as GEQIP seeks to update education structures and systems. This work will strengthen assumptions 9, 10,16 & 30. However the project are not in a position to spend time and resources on lobbying at this stage. Nevertheless, further liaison will continue at the GEC forum and education cluster meetings, alongside our connection with regional bureaus where strong partnerships already exist to aid advocacy work with the MoE.	Same as response 1 as it is a long-term issue that goes beyond the lifetime of the project.
Reading Comprehension Skills 5. Girls have challenges decoding meaning from texts in (i) local and (ii) second language. **Rec F: Should consider addressing comprehension skills explicitly in homework clubs to support improvements in decoding.**	**Rec F:** The project agrees that this is a good recommendation. Girls are currently being assessed for their needs in homework clubs, and will subsequently be taught at the right level, focusing on gaps in learning and areas of need.	As part of the Covid-19 distance learning response remote exam support will be offered to G 8 & 12 girls prior to school resuming. Once school resumes all grades will be offered support, alongside a focus on reading comprehension.

	We will continue to encourage girls to borrow books from the library (noted in the midline as a positive finding). Further work will also take place with Education officers and teachers to enhance reading strategies in homework clubs. Reading comprehension will be considered as part of this ongoing process through the build in of reading aloud in pairs and small groups into the overall approach. This will aid engagement and decoding. Paired and small group reading is considered where some girls may feel conscious of reading aloud. Reading aloud at all ages will be encouraged. Work will also take place through FGDs to collect feedback on the areas of need girls feel needs addressing.	Work will also take place through FGDs to collect feedback on the areas of need girls feel needs addressing. *Social distancing will not prevent reading aloud. Borrowing of books may be reduced (prevention of passing on virus).*
Numeracy – pattern recognition 6. Girls have difficulties with the pattern recognition task. **Rec G: Should consider addressing this in homework clubs to support improvements in this pattern recognition task discrete.**	**Rec G:** The project notes the importance of this recommendation and observe the pattern recognition task is misplaced I the numeracy test used in baseline and midline. It has been noticed that the pattern recognition task is misplaced in the EGMA numeracy test. Both the preceding and subsequent tasks are easier. The missing number task should be the final subtask as it requires higher cognitive logical reasoning, as well as the ability to add and subtract, and also to count backwards. If the missing number task were placed in the correct part of the test, different results may have occurred. Further work will take place with Education officers and teachers to address	Despite the learning tests not being administered as part of the endline, further work will still take place to improve this area, once school resumes.

	this, both the subject knowledge and method that teachers use to support girls in this area.	
A minority of girls meet expected curriculum competencies for English in all grade levels 7. A minority of girls meet expected curriculum competencies for English in all grade levels where English is taught or where it is the language of instruction which will prevent girls from transitioning to secondary school and prevent their ability to access the wider curriculum (where English is the language of instruction). **Rec H: Should assess teachers' existing English language abilities.** **Rec I: Should consider how we can better support teachers with teaching girls of <u>varying levels of English</u> ability.**	The project notes the importance of this recommendation but would find it difficult to address, given the original scope and design of the project. The original project scope had planned to upskill teachers in English as it had been identified as a weakness. However, this was removed due to cuts to the budget. **Rec H:** The project observes that teachers are placed in schools beyond the project control which has an impact on the varying range of English language acquisition in teachers across project schools. Assessing the level of English acquisition across project teachers would mean larger adaptation to our theory of change than what is now manageable. **Rec I:** The incorporation of discussions on working with students with varying levels of English ability will be considered in CoPs.	This is a long-term issue that goes beyond the lifetime of the project.
The proportion of girls who have been married or are cohabiting with men as if married has increased between BL and ML 8. The proportion of girls who have been married or are cohabiting with men as if married has increased between BL and ML which (marriage) was found to result in reduced learning outcomes. This may be due to the onset of adolescence as girls are now older 34.8% of girls in the treatment group who are over 12 years of age & have started menstruating, do not know of a way to prevent pregnancy	The project agrees that these are good recommendations. **Rec K & J:** **Family Hubs:** Work will take place with family hubs to consider how parents engage with girls (in relation to the power dynamic around choice making which impacts on decision making around SRH). **Life Skills sessions:** Life skills sessions will also address the areas of resilience that need to be improved, i.e. navigation, negotiation and decision	Newly married and pregnant girls, as well as young mothers that have remained engaged with the project have been included in the distribution of worksheets, sanitary pads and soap. They have also received family planning and ante-natal services advice from the local Health Extension Workers. Plans to increase the level of awareness on contraception and other types of family planning within the SRH awareness activities facilitated by youth friendly SRH Officers from the

(including abstinence). This could result in girls becoming pregnant which is likely to affect several educational quality outcomes. **Rec J: Should consider additional support for girls within the 'onset of adolescence' age range** **Rec K: Should critically review the sexual and reproductive health curriculum taught in girls' clubs**	making that assist girls to be more confident in making decisions on their own and negotiating with parents in the domain of choice making. **Ministry of Health:** Collective attention on SRH both in academic and Service delivery from ministry of health will also be addressed. **Rec J:** The project will use internal data to target the 'onset of adolescent' age ranges within the current curriculum, and apply revised content to it. **Rec K:** The project have plans in place to increase the level of awareness on contraception and other types of family planning within the SRH awareness activities facilitated by youth friendly SRH Officers from the local SRH clinics. **Proposed changes and adaptations:** Further work will take place to improve the current curriculum content (which is based on Woreda Health office modules) and how the curriculum is taught which strengthens assumption 20. An extra feedback loop will be inserted to collect feedback from girls on the service they receive alongside a quality check on external providers	local SRH clinics will commence following the reopening of schools.
Some girls find it difficult to access sanitary wear 9. 9.7% of girls find it difficult to access sanitary wear. While this is less than half of the proportion in the control group it's still large. Qualitative evidence suggests that access to sanitary wear supports attendance outcomes. Lack of	The project agrees that this is a good recommendation. **Rec L:** The project will analyse data to understand which schools there are gaps in provision, or limited access to sanitary corners.	Sanitary pad and soap distribution is continuing during the Covid-19 response, alongside the distribution of worksheets. Scale up of creation of reusable sanitary pads, originally started in South Gondar, has been halted due to COVID 19.

access had a negative effect on local language literacy scores. **Rec L: Should consider where the gaps in access exist.** **Rec M: Should consider how we can provide additional sanitary clothes**	**Rec M:** In addition to sanitary pads the project already provides pants to girls where needed. Further work will take place on improving girls' awareness on sanitary pad use. Training has also started on making re-usable sanitary pads.	
Some girls do not use toilets at school 10.15% of girls do not use toilets at school which was shown to have a negative effect on girls' academic self-efficacy at statistically significant levels. **Rec N: Should consider how we can advocate for facility improvements with government.**	The project agrees that this is a good recommendation. **Rec N:** ChildHope and CHADET have sourced funding from Guernsey Overseas Aid for a WASH project aimed at improving the water supply to schools. Availability of water will improve the toilet hygiene and environment so girls will feel more comfortable using the toilet. The WASH project runs alongside the GEC-T project during its final year. This will take place external to the original project scope. In addition to this the project can lobby government to support school with such facilities through sharing these findings with senior government officials in Amhara and Oromia.	The GOAC funded WASH project continues implementation during the school closures.
Some teachers in qualitative sessions have requested additional training on how to accommodate for children with disabilities 11.Teachers in qualitative sessions have requested additional training on how to accommodate for children with disabilities. **Rec O: The project should consider whether it can provide additional training on inclusion to teachers before endline.**	The project agrees that this is a good recommendation. **Rec O:** The project has been planning disability training for teachers in collaboration with MAITS through the use of a volunteer who would be an expert in learning disabilities. It was originally planned as an in-person workshop in Ethiopia, We have received positive feedback about the guidance on teaching students with different impairments (visual, hearing and ADHD) that has been produced in-house, which appears to have whetted	Once schools resume, disability training can take place and also be cascaded with social-distancing rules considered. Remote training for project staff is now being negotiated and then learning to be planned for further cascade.

	teachers' appetites for more specialised disability training.	
A large proportion of girls in treatment groups feel lonely often at school 12. A large proportion of girls in treatment groups feel lonely often at school which is a statistically significant predictor of (i) lower local language literacy aggregate scores and (ii) lower local language oral reading fluency. It was also found that attending Girls' Clubs reduced feeling lonely at school. As 46.8% of beneficiaries are members of girls' clubs an increase in membership will support improvements in academic self-efficacy (and subsequently learning). **Rec P: Should consider how we can increase Girl Club membership in schools.**	The project agrees that this is a good recommendation. **Rec P:** The project has already looked into the translation of the questions from English to Amharic and Afan Oromo and cannot detect any errors in translation. Further work will take place to explore the area of loneliness, quality of relationships and belonging and the girls understanding of these concepts, particularly through disaggregated data (linking to the onset of adolescence and adolescence). The increase in membership of Girls' Clubs is also under consideration.	CHADET had been considering increasing membership of Girls' Clubs prior to the closure of schools and restrictions on group sizes. Outside of COVID 19 we would have considered doubling the number of members from the current membership, 5793. While Covid-19 infections are rising the project cannot take the risk of reintroducing Girls' Club activities outside school. Once schools reopen and government restrictions are relaxed the project can revisit club sizes, however realistically it is unlikely that numbers would increase significantly in the final two Qs of the project. the operation of this, i.e. *scattering sessions over the week with limit on numbers, will need to be considered.* This might include the setting up of more, but smaller clubs in each school, which can be led by the girls, and supported by the focal teacher.
Parental engagement are predictors of learning 13. Parental engagement including asking a child about what they did in school or helping them with homework, and attitudes towards girls' education (P63) are all predictors of learning at midline. For e.g. girls' report doing chores make it hard to do schoolwork ($p<0.05$; Beta=-0.121), or not being able to choose whether to stay in school and having to accept what is decided for her ($P<0.05$; Beta=-0.148) (page 176) **Rec Q: Should consider how we can strengthen outreach activities with parents based on these findings.**	The project agrees that this is a good recommendation. **Rec Q:** Family Hubs will remain the primary forum for parent engagement and the agenda for each forum meeting serves to address a range of themes and issues, for e.g. how to protect girls so they feel less prone to harm en-route to school, or how to support girls with their homework and promote the equal distribution of chores. **Family Hubs:** Girls are also involved in Family Hubs so have a role in jointly identifying a solution acceptable to all.	Family Hubs will remain the primary forum for parent engagement and the agenda for each forum meeting could address a different issue. However, realistically the Hubs can only resume once the Covid-19 infection rates reduce as the project cannot take the risk of spreading infection. Instructions have been included with worksheet distribution encouraging parents to ensure that their daughters engage with the worksheets and learning. As parents are an integral aspect when encouraging girls to complete the worksheets, they are engaging with the materials.

	Proposed changes and adaptations: **Family Hubs:** Girls are also involved in Family Hubs so can consider Informal family learning sessions can support parents and girls on how to integrate numeracy into everyday life, at the market, counting and weighing etc. alongside orientation to homework tasks. This will strengthen assumption 6.	
Having a teacher often absent from class has a negative effect on self-esteem 14. Having a teacher often absent from class has a negative effect on self-esteem. Teacher absenteeism is a statistically significant predictor of and contributes to lower English and local language literacy aggregate score, and local language oral reading fluency according to linear regression models. It predicts that girls will score 4.97% less on English aggregate literacy, 6.17% less in local language literacy score, and 9.76 words per minute less in local language oral reading fluency. **Rec R: The project should consider what steps it can take to reduce teacher absenteeism to ensure this does not hamper project impact.**	**Rec R:** The project notes the importance of this recommendation but would find it difficult to address at system level as it is dependent on a variety of factors, given the original scope and design of the project. However, further work will be discussed to engage principals on ways to reduce absenteeism at school level.	The leadership and management refresher training cannot go ahead until government restrictions on group sizes are relaxed. Once they do, and schools reopen, South Gonder and South Wollo leadership and management training will continue.

Response – Key Findings

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

1. Where do we feel the findings have confirmed our existing understanding ?
2. Where do we feel the findings have challenged our existing understanding?
3. Where do we feel the findings have added 'more' (nuance) to what was already known?

Finding 1 – increase in numeracy outcomes:

There is a statistically significant impact on numeracy outcomes. We successfully delivered improvements to girls' numeracy over and above girls in the control group.

(i) Girls in grade 8 experienced the greatest average improvement in numeracy between baseline and midline. These girls benefited most from our activities between BL-ML. As girls who were in grade 8 at baseline have since transitioned to secondary school, this indicates that we have supported their numeracy improvements, despite a confluence of changes taking place in their lives at this milestone (including adolescence and a transition to a new school, with new teachers and peers).

Our girls outperformed girls in the control group in all grades.

Our response: 1 – Confirms what we already know.

Contrary to the counter intuitive trend given at baseline (that attainment decreased as grades increased), the project still has still held the assumption that numeracy levels will have increased by midline, which is confirmed in this finding. Midline and internal data (pass and transition rates) confirm fit for purpose project design and what we already know about numeracy outcomes. The professional development mechanism of the project, alongside the combination of a range of activities, have aided the success of this outcome. Examples of this are:

CPD: Teacher training in gender sensitivity, student centred pedagogy and a special focus on math subject specific pedagogy.

Supporting interventions & provision: Sanitary pad distribution, sanitary corners to support attendance to school and tutorials.

Finding 2 – Minority of girls meet curriculum expectations in numeracy:

Only a minority of girls' meet curriculum expectations in numeracy in all grade levels, (the numeracy curriculum doesn't meet girls at their current level and teachers struggle to deliver to the curriculum in the way it has been designed).

Our response: 1 - Confirms what we already know

Contrary to the counter intuitive trend given at baseline (that attainment decreased as grades increased), the project still holds the assumption that numeracy levels will have increased by midline, which is confirmed in 'finding 1'. In addition to this we were under the impression that the levels were below the national curriculum which has been confirmed through the midline.

There is general consensus across Ethiopia that the alignment of content to the national curriculum needs further work. The project are aware that there is a wider process of an ongoing Education Sector Development Plan currently being undertaken where the Ethiopian curriculum is under a content and level benchmarking review. We note that the main issue is curriculum design, rather than teachers' ability to deliver to the curriculum. Our project transition rate 80%+, higher than the national average, suggests that girls are achieving at a higher rate than nationally (as transition is dependent on meeting minimum standards across the curriculum). We also note that the impact on our project population of girls who are

marginalised will be higher if the curriculum is pitched at too high a level, or needs further reform to be better fit for purpose. Further investigation is underway through communication with other Ethiopian GEC project to identify similar findings.

Finding 3 – Homework clubs have helped girls improve their English, local lang. and numeracy:

Evidence that suggests we have influenced literacy improvements between BL and ML through the use of logistic regressions to predict higher levels of English and local language oral reading fluency. In qualitative sessions girls have reported that **homework clubs** have helped them to improve their literacy through i) the re-teaching of core concepts and ii) access to additional reading materials. Both teachers and girls report similar results of participation in homework clubs in qualitative sessions which validates this finding. Homework clubs are also reported to have had a direct role in supporting improvements in self-esteem, according to predictive models, suggesting that homework tutorials provide a social context in which girls feel validated, supported, and empowered by their peers.

Our response: 1 – Confirms what we already know

This finding confirms that the homework clubs/tutorials are working to the intended design. They have served the needs of girls who have been targeted to take part and demonstrate the effectiveness of the learning needs assessments, used as part of the needs analysis process. The link between academic achievement and self-esteem is also an assumption listed in our theory of change (assumption 34), that through active engagement, improvements in learning are expected. Our teacher training model trains and supports teachers to more actively engage girls in learning (through a more student centred approach). Internal data evidences high pass rates and high transition rates and the midline report provides further evidence to confirm what we knew.

Finding 4 - Participation in Girls' Clubs was a statistically significant predictor of academic self-efficacy:

Participation in Girls' Clubs was a statistically significant predictor of academic self-efficacy, suggesting that Girls' Club's support girls to feel confident in their academic abilities

Project response: 1 – Confirms what we already know

This finding confirms what we already know about the relationship between participation in girls' clubs and academic self-efficacy where belief in one's ability in successfully achieving academically (Bandura; Eccles & Wigfield; Schunk & Pajares) is supported through the fostering of self-esteem. Gender-sensitive pedagogy training for focal teachers involve girls more in class thus increasing girls' sense of their own abilities and achievement. The girls' clubs work at a number of levels as well as offering formal life-skills lessons they give girls an opportunity to engage in mutual support thus aiding to raise a girls' academic self-esteem which impacts on self-efficacy. Our TOC design (assumption 33 & 28) assumes that levels of engagement are increased through the fostering of belonging and targeting areas of need additionally drives the increase of academic self-efficacy to cross over into homework clubs/tutorials. Girls' confidence has also increased to navigate problems and take risks as part of the learning process.

Finding 5 – Girls who are supported to participate in class is a significant predictor of improvements in English ORF and numeracy:

Supporting girls to feel capable and comfortable participating in class is a statistically significant predictor of English oral reading fluency and numeracy. Several of our activities were found to promote girls' perceived level of confidence to participate. These namely include Girls' Clubs and Homework Tutorials. This suggests that through improving girls' ability to participate in class, they will drive improvements in learning and may have contributed to the project's impact on numeracy.

Project response: 1 – confirms what we already know

This has confirmed what we already know about:

Engagement and participation - increasing the levels of engagement and participation through a student centred approach, including group, pair and individual tasks in learning sessions. There are learning gains

when girls are encouraged and supported to participate. In addition, supporting a girl to participate would have the effect of increasing a girls' self-esteem and increasing that self-efficacy for that subject. Equally, Where girls can interact freely with others and participate in activities, their capability to participate in education, to fully engage, understand and be confident is enhanced. (Vaughn, 2007). Gender-sensitive pedagogy training for teachers has also increased involvement of girls more in class, which also increases girls' sense of their own abilities and achievement.

Fit for purpose needs analysis - the identification of a student's strengths and areas for development are possible where there is participation as supporting girls to participate aids the teacher in the identification of learning needs, which would translate into learning gains.

Supporting interventions - The life skills training activities and leadership aspects of Girls' Club membership have given girls a clearer understanding of their abilities and about their potential to achieve in education. Gender-sensitive pedagogy training for teachers has also increased involvement of girls more in class, which also increases girls' sense of their own abilities and achievement.

Assumption 34 – which assumes higher levels of engagement and participation due to high quality of teaching, is confirmed.

Finding 6 – Improvements in self-esteem support improvements in learning:

Self-esteem is a statistically significant predictor of numeracy, English and local language oral reading fluency & aggregate score, suggesting that. Equally academic self-efficacy was a statistically significant predictor of English aggregate score, English and local language oral reading fluency, and local language aggregate score. Improvements in academic self-efficacy are likely to drive improvements in literacy learning

Project response: 1 – Confirms what we already know

This finding confirms good project design through a combinations and interlinking of activities across outputs, (particularly output 1, 3 & 4, having a positive impact). The leadership aspect of the Girls' Club, along with meaningful participation in class, contributes to raised levels of girls' self-esteem. Through a combination of interventions girls have a clearer understanding of their self-worth, with increased self-esteem leading to improved learning (Chan; Lo et.al). Life skills sessions are a good example of how one intervention serves a dual purpose of developing agency within the girl particularly within a social context where they can feel they are accepted by their peers and they can have and grow their sense of belonging (sociometer theory – Leary et al. 1995) and additionally improving their learning outcomes. The benefits of being able to operate freely with their peers, particularly within a social context where they can feel they are accepted by their peers and can develop a sense of belonging are manifested in learning outcomes.

This confirms assumption 28 & 33.

Finding 7 – Parent engagement supports learning:

Several home environments factors around parental engagement was also shown to support learning. (i) Parental attitudes towards girls' education are a statistically significant predictor of local language oral reading fluency and local language aggregate score. (ii) When parents are supportive of girls' education, this leads to higher levels of local language literacy. Additionally, (iii) having an adult at home help a girl with homework is a statistically significant predictor of English aggregate score and numeracy, (iv) having an adult at home to ask a child about what they do in school is a statistically significant predictor of local language aggregate score, and local language oral reading fluency.

Project response: 1 – Confirms what we already know

As parents have been engaged throughout GEC 1, a continuation of their involvement was factored into the design of GEC-T. In response to the baseline report and a request from GEC-T

girls, activities involving parents have increased, e.g. the reintroduction of Family Hubs. The girls prefer this Hub type forum as it allows them to discuss more sensitive subjects outside the home, for example early marriage or fear of abuse, harassment, or abduction on the way to school. Through Hub discussions, parents have a role in jointly identifying a solution acceptable to all. Barriers are also reduced when parents have a positive attitude toward girls' education which impacts positively on levels of self-esteem and academic self-efficacy as girls can feel their efforts are supported, thus supporting assumption 6.. The support they give also assists girls in completing their homework and supports the problem-solving approach to learning.

Finding 8, IO1 – Attendance improved due to a combination of project activities

Despite having little room for progress in attendance several of our activities have contributed to attendance improvements. Regression analyses determines that having attended a secondary school transition camp supported girls to improve their attendance between. Qualitative evidence suggests that several project activities contributed to attendance improvements including (i) the provision of school uniforms and (ii) supplies to girls and the provision of sanitary wear to support girls to attend school during menstruation.

Project response: 1 – confirms what we already know

This finding confirms our understanding, it is clear that the quality of project design, through its holistic approach and interlinking interventions across outputs, has had a positive impact. For example:

Output 1 – has created a conducive learning environment through creating safe spaces for girls has allowed girls to feel safe enough to participate freely in a conducive learning environment.

Output 2 - has removed the barrier of financial restriction to attend school and has provided girls with practical and financial support which would have reduced the girls ability to attend school.

Output 3 - has aimed to improve teacher pedagogy, ensuring the girls receive a quality education.

Output 4 - has helped in the personal development of the girl, helping them to fully engage with their learning, beyond mere participation.

By design, this was the intention of the project, no one activity has been intended to be more important than another.

Finding 9, IO1 - The increased attendance levels that we have between BL-ML do not influence English, local lang. or numeracy:

Predictive models suggest that attendance levels do not directly influence English, local language literacy or numeracy. The more a girl attends school between baseline and midline does not therefore necessarily lead to her learning more. This could be due to the fact that girls on average have a relatively high level of attendance, which additional improvements in attendance may not lead to higher levels of learning as any additional attendance improvements would be marginal.

Project response: 2 – Challenges our original assumption

This challenges assumption no 1 in our TOC, that "if girls attend school their level of learning will increase". In saying this, we understand that the improvement in attendance between BL and ML has been so minimal that have not had the impact we were expecting from 'improved attendance'.

Finding 10, Outcome 2 – SRH interventions are well targeted to girls who fall pregnant (relating to transition):

With regards to transitions, SRH interventions are well suited to the intended objectives, given that girls who fall pregnant are likelier to fail at transitions.

Project response: 1 – confirms what we already know

This is a valuable finding that recognises the quality of activities supporting the sub-groups of girls who are pregnant, in this case pregnant girls which confirms our transformative approach to GESI. It also confirms assumption 20 holds true to this cohort of girls.

Finding 11, IO2 – Improvements in preparation, pedagogy, and assessment practices:

A higher proportion of lessons in our schools demonstrated improved preparation, pedagogy, and assessment practices which suggests we have played a role in improving the quality of instruction in schools. Teachers report in interviews that these improvements are due to the training we provided where the benefits of learning new methodologies have helped them to better support children in their lessons.

Project response: 1 – confirms what we already know

The TOC assumption 1 is correct, which demonstrates our CPD intervention is fit for purpose and of high quality, thus supporting assumption 11. In addition to direct training in pedagogy, leadership training has been introduced to support better teaching, including principals and education officials. The set-up of CoPs so that teachers could benefit from peer observation and support, the revision of the lesson observation rubric (with the focus the domains of preparation, pedagogy, and assessment), orientation to its use and the development of the Lesson Observation User Guide and orientation have been major contributions. Assumption 11, (I, ii) training is of high quality and fit for purpose has also been confirmed.

Finding 12, IO2 – Request for additional training to support GWD:

Teachers have also requested additional training on how to teach and accommodate for children with disabilities

Project response: 1 – confirms what we already know

Despite our current interventions to support teachers in delivering quality lessons to all students – i.e. the distribution of guidelines on how to identify and support GWD and awareness raising on disability, this finding confirms our observations that more support is needed which has also been voiced in CoPs. Further work will take place to ascertain the type of support needed. In addition to the development of guides for teachers, we are currently in the process of planning disability training for teachers in collaboration with MAITS who specialise in learning disabilities. Negotiation is now underway for remote cascade training to take place for project staff. Positive feedback has been received on our most recent impairment support training (visual, hearing & ADHD) appearing to whet teachers' appetites for more specialised disability training.

Finding 13 - Having a teacher often absent from class has a negative effect on self-esteem (P13,175):

Teacher absenteeism is a statistically significant predictor of and contributes to lower English and local language literacy aggregate score, and local language oral reading fluency according to linear regression models. Teacher absenteeism predicts that girls will score 4.97% less on English aggregate literacy, 6.17% less in local language literacy score, and 9.76 words per minute less in local language oral reading fluency.

Project response: 1 – confirms what we already know

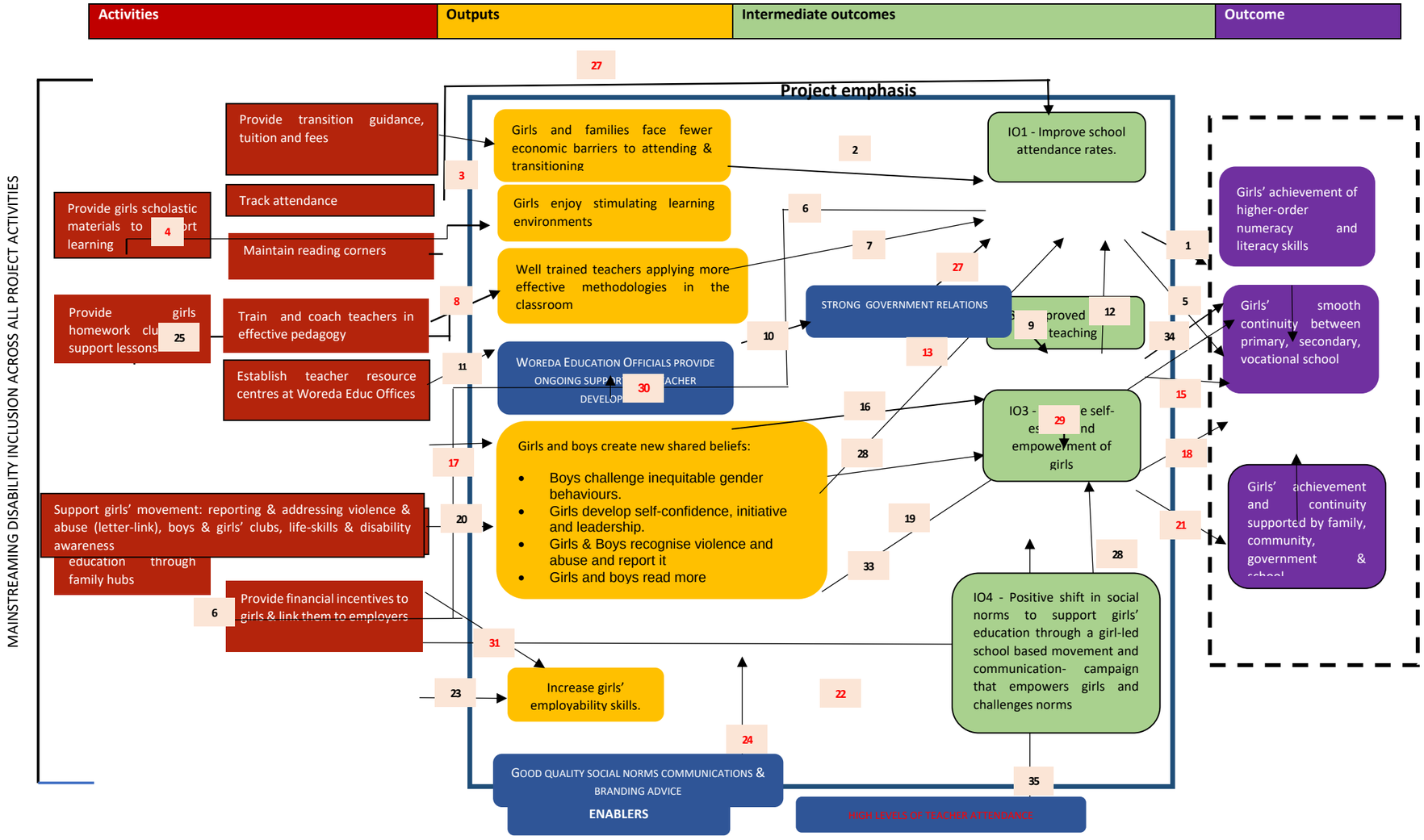
This finding has added more nuance to what we already know and has been inserted as a new assumption (no. 35 "consistent and high levels of teacher attendance has a positive effect on self-esteem"). Teacher absenteeism not only has a negative effect on academic self-efficacy but also self-esteem/self-worth as a student may see absenteeism as a reflection on them, as if they are not important enough to have a teacher attend regularly.

However, the report states that "*having a teacher often absent from class or having a girl believe that the teacher treats girls and boys unequally has a negative effect on self-esteem*" does not unpack which of the two scenarios has the bigger effect on self-esteem, or the nature of the unequal treatment. In the context in which we are working, having a girl witness girls being treated less fairly or unequally than boys, may have a greater impact on self-esteem than an absent teacher. Previous studies have identified a link between teacher absence and self-esteem, so this finding, at face value, is as expected.

Finding 14 - Having a girl believe that the teacher treats girls and boys unequally has a negative effect on self-esteem:

Project response: 1 – Confirms our understanding This confirms our understanding which is why we have included gender-equity activities, e.g. gender-sensitive teaching, Girls' Club activities. Girls are more confident to ask questions and raise their hands in class. Where a girl is ignored or not included there is an impact on self-esteem as they feel invisible within the classroom environment. This has a knock on effect on engagement, thus becoming more detached which again, impacts on self esteem.
Finding 15 - A large proportion of girls in treatment groups feel lonely often at school which is a statistically significant predictor of (i) lower local language literacy aggregate scores and (ii) lower local language oral reading fluency. It was also found that attending Girls' Clubs reduced feeling lonely at school. As 46.8% of beneficiaries are members of girls' clubs an increase in membership will support improvements in academic self-efficacy (and subsequently learning).
Project response: 3 – Challenges our understanding This challenges our existing understanding as our interventions have been planned around raising self-esteem which we have understood would impact on a sense of 'belonging'. We have assumed that having a higher sense of belonging will impact on wellbeing (encompassing a reduced loneliness). We have not assumed that girls who attend girls clubs, life skills sessions and are more engaged in interactive lessons can feel lonely at school. Further exploration in the area of belonging, quality relationships, individual and collective belonging (to test assumption 28, 33 ii further) through disaggregated data to cover changes in the girl through onset of adolescence and adolescence, is needed to identify the cause.

ChildHope & CHADET Theory of Change for supporting marginalised girls to learn and transition successfully.



Theory of Change and Assumptions

Assumption	Description	Strength of assumption
1	(i) The school provides a conducive environment for girls to learn (links to safety)	S M
2	Inflation does not adversely affect budget allocation	M (linked to the possibility of rising inflation)
5	(i) The school provides a conducive environment for girls to learn (links to safety) (ii) Girls feel they belong to the school community (iii) Girls are able to attend school	M S M (links to unsafe routes to school)
6	(i) Family hubs are run regularly enough for continuous dialogue to take place (ii) Key stakeholders attend (that would benefit from discourse around girls education) (iii) Content is fit for purpose (iv) Girls' self-efficacy and self-esteem is raised due to parent involvement	S S S S
7	(i) Girls are able to attend school	M (links to unsafe routes to school)
11	(i) Training inputs are high quality (ii) Training is fit for purpose (iii) There is room in CoPs for teachers to share and reflect on practice	S S M
12	Girls are able to attend school	M

9, 10, 16 & 30	(i) (ii)	Government officials are permitted and supported to attend sessions and meetings. Outcomes from meetings link through to a wider agenda	M M
19	(i)	The environment in girls clubs fosters the development of personal relationships, comradery and a sense of belonging	M
20	(ii) (iii)	The life skills curriculum content addresses relevant barriers and attitudes about girls education The life skills curriculum content is fit for purpose	S M
23	(i) (ii) (iii)	Employment is available The standard of available employment is in line with the project vision External partners are available to support income generation with families	W (links to the stability of employment in Ethiopia) W (the project is not able to control the standard of employment available. It can provide project beneficiaries with advice and guidance) M
25	(i) (ii)	Homework clubs identify and act on specific areas of need The environment girls learn in is conducive (links to assumption 1.2)	S S

28 & 33	(i) The content of girls clubs addresses barriers that prevent girls from attending school (ii) The environment in girls clubs fosters the development of personal relationships, comradery and a sense of belonging	M M
34	(i) Teachers are present in school most of the time (have put .most, to accommodate unforeseen illness) (ii) Girls have appropriate resources/materials to learn (iii) Girls are able to attend school (iv) The environment girls learn in is conducive (links to assumption 1.2) (v) Levels of engagement in learning are higher	W S M M
35	Consistent and high levels of teacher attendance has a positive effect on self esteem	W

3. Have findings shed new light on relationships between our outputs, intermediate outcomes, and outcomes and the significance of barriers for certain groups of children – and how these can be overcome?

- The impact of decreased levels of self-esteem linked to teacher absenteeism in finding 13 has led to a slight amendment in the TOC, linking assumption 35 to a new enabler "high levels of teacher attendance", that connects to "increase in self-esteem and empowerment of girls." This will lead us to explore different ways of achieving higher teacher attendance levels at school level.
- Assumption 19 (same assumption as assumption 28 & 33 (ii)) "The environment in girls clubs fosters the development of personal relationships, comradery and a sense of belonging) needs further exploration. At output level in the logframe and the MTR outputs framework - "more confident girls with values, skills and challenged norms" assumes that girls who attend girls clubs will have a higher sense of belonging due to friendships and comradery fostered in sessions. While this output does not need changing, further work needs to take place to ascertain the underlying drivers of this finding.
- The positive finding that parent engagement supports learning will be enhanced through more targeted discussions linked to learning within the existing family hub structure.

4. Include critical analysis and reflection on the project theory of change and the assumptions that underpin it. This is included in our response to 'findings' and recommendations and also the assumptions table below the most recent version of theory of change.

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

5. The management response should outline any changes that the project is proposing to do following any emergent findings from the midline 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).

There are no current changes suggested to the logframe. The project have attached the MTR output framework for further reference.

Response – GESI

Has the evaluator's analysis of our approach to GESI is in line with our project ambitions and objectives?

The project notes that the GESI analysis at midline is in line with our ambitions and objectives but note a slight disconnect between the GESI tool used and analysis.

The midline report does not have a dedicated chapter or section to GESI, and that GESI observations are intertwined throughout the report which has made it more difficult for us to cross reference our current GESI tool responses with midline findings. References and findings are such as attitudes to early marriage changing (P146) which links to a variety of project interventions that have had a domino effect, for example: noted in output 1 – GESI Transformation *'… girls have been trained in negotiation techniques, for example to be assertive but not aggressive. N.A., a 16-year-old girl from a rural community in South Wollo, who is in grade 9, is a good example of a girls' club member who has put her knowledge and skills learning into practice. She received gifts and a marriage proposal from a wealthy man in her community and her mother and other influential community members encouraged her to accept. As a confident girls' club member she felt empowered to use her right to say "No" and to approach the man to explain the reasons why she was not ready to marry and why she was saying no to the proposal. She said she wanted to continue her education and that she did not want to live with someone she did not love. The man and her mother accepted her decision….*'. Feeding through selected areas from the GESI tool into the report would have made it easier for the project to make the direct connection.

In addition to this the project feel that some of the areas explored would also have benefited from further scrutiny. For example, the report states that "…*Being married or cohabiting with a man as if married … contributes to reduced outcomes in local language oral reading fluency, local language aggregate score, English oral reading fluency, and English literacy aggregate score…*" (p 12) which can imply a false relationship between marriage and learning outcomes as being married *per se* does not contribute to reduced outcomes, although being married young, may put a girl in a position where other factors, such as keeping a home, affect their ability to study, and therefore reduce outcomes. Similarly, on disability the report stated that "*Having a mobility disability … contributes to lower local language aggregate score and local language oral reading fluency***" (p 13),** yet remained unexplored – in spite on the finding being reported. The likelihood is that having a mobility disability *per se* does not contribute to lower learning levels, but other factors associated with mobility do. Areas such as these

have remained unexplored which did not give the project sufficient room to make informed judgments.

We note that the sub-groups of girls, e.g. GWD, married girls, pregnant girls and young mothers have been addressed and some appropriate and useful recommendations about the need to increase disability training for teachers and increase support for married girls, pregnant girls and young mothers have been included, so that they can attend school or continue education (e.g. SRH awareness). In the COVID19 MTR we have also suggested that distance learning materials (worksheets) produced during school closure could continue once schools reopen so sub-groups of girls could continue to learn at home.

Again, different types of support for girls with disabilities for different types of impairment has been addressed, rather than a generalised approach. For example there is a recommendation on girls with learning disabilities, which is an area that the project has been focusing on. MAITS and CHADET are currently in negotiations to run a remote training workshop on learning disabilities. The report also mentioned that teachers also highlighted they would welcome additional support on teaching children with learning disabilities.

It's also noted that IO4 could have been given further attention, where more detail about how girls can exert their current levels of self-esteem and feel more empowered and take leadership roles (transformative) in Girls' Club activities and campaigns addressing negative social norms. This links to the moved output 4 into the new IO4 *'There is a positive shift I social norms to support girls' education through a girl-led school based movement and communication campaign that empowers girls and challenges norms'*. As the high levels of confidence and sense of empowerment of project girls is always being pointed out by visitors and technical monitors it would have been good to have further focus on this.

The gender issue of feeling unsafe on the way to school is addressed well and the recommendations are appropriate. The report does highlight issues facing boys in school, which is something girls always point out during monitoring visits, however there is little scope for the project to support boys directly, except in Boys' Clubs.