Improved Girls Learning in Rural Wolaita

Project title	**Improved Girls Learning in Rural Wolaita Zone**
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Project will be focused on	Lower primary education Upper primary education
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Project Midline Evaluation Report

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Executive Summary

> "They say if you give a man a fish, you feed him for one day. If you teach a man to fish you give him food for life. Just like that the project changes our lives forever. It brings change for a life time. They have given what cannot be lost, no one can take it away from us. It is for life" (Female teachers' group discussion).

'Improved Girls Learning in Rural Wolaita' aims to improve girls' enrolment, retention, learning and school performance in 123 rural elementary schools in four marginalised, densely populated woredas (districts) of Wolaita (Ethiopia). The project aims to reach all girls in these schools, because all girls are regarded as disadvantaged girls. The Theory of Change proposes that a holistic package of activities involving a wide range of stakeholders, such as girls, parents, teachers, school directors, woreda officials and community members will contribute to stakeholders taking action to support girls' education. The goal is to raise awareness, change attitudes and build capacity to mobilise the various stakeholders in developing sustainable systems for improvement of girls' education.

This report contains the results of the midline evaluation of the project after various components of the project have been implemented for two years since the baseline evaluation. The data was collected by trained woreda supervisors through structured interviews and group discussions with various stakeholders. The midline results are compared with baseline results to determine gains as a result of the project.

Outcome results

1) There were significant differences ($p<0.0001$) in all subtests of the **EGRA and EGMA** (except for missing values and subtraction for senior girls) in project girls' gain since baseline, compared to gain of control group girls. Both groups of girls, juniors and seniors reached the set midline target for reading (junior girls 109% and senior girls 101%). The gains in numeracy for junior girls were beyond the set target (141%) and the senior girls met the target (110%). The gains were significant even after adjusted for intra-cluster correlations.
2) There is definite improvement in the project girls' reading ability which can be attributed to the intervention. The standard deviation shows that there are girls that scores very high, while 63% of the junior girls still struggle. Despite very positive results, there is still concern that the girls are not on a level expected of their age group. In the senior group there is still low levels of reading comprehension which could be related to difficulty with English language.
3) The **disparity** between boys' and girls' performance in core subjects decreased from 5.3% to 3.6% for seniors. There were girls that performed better than boys, and were among the best in their grade, which was not seen before.
4) **Attendance** has significantly improved for the project girls compared to the control girls. Project girls' attendance improved, while the control group's attendance dropped over time. There is a tendency for the project girls to have poor attendance in September, after the holiday and during the Meskel festival. If this can be addressed it can help girls to be in school from the start.
5) The **drop out** of girls during the year decreased dramatically in the project woredas, although the same trend is seen in the control woreda and among boys. The change may therefore not be project related.
   In the cohort of girls in the project schools we observed lower *replacements* of project girls than in the control cohort. Compared to replacement of 15% senior girls in the project schools, 29% control group girls were replaced. These girls are not all dropouts, some moved to schools in other woredas, but it shows a trend.
6) **Enrolment** numbers reflects environmental factors and cannot be attributed to the project. There seems to be less dropout and many additional boys returning to school. A similar but less prominent pattern is visible for the girls in the project woredas which influences enrolment data.

7) **Grade 8 results** received at midline differ fundamentally from those received at baseline. The inconsistency of the data makes it impossible to compare the results. It seems that differences are the result of different criteria for passing or in reporting by woreda offices - not project-related.

Output results

In almost all measures the project girls rated parents and teachers and schools less positive than in baseline. Compared to that, the control group girls rated all scales extremely low. It seems as if there is a pattern we have to see. The project girls' awareness of what girls' education could be like and their increased self-confidence could have raised their expectations. These expectations could have played a role in their evaluation. It seems as if they are disillusioned that parents and teachers changed slower than they expected. All participants in the group discussions were convinced of the changes in schools and families and were very positive about the impact of the intervention. The control group on the other hand, is extremely negative, much more than in baseline. It may be that their conditions deteriorated. It may be that they want to show how much they need the intervention in their schools by giving low evaluations.

Girls rated their **parental support** average (seniors 4.5 and juniors 5 on scale 0-10), but lower than in baseline. **Parents** indicated that they changed a bit and support girls' education somewhat. A low percentage of parents (2%) indicated that they actually decreased domestic chores of girls and 79% somewhat. It seems as if there developed an awareness of the value of girls' education and high aspirations for their girls, but this attitude is not yet visible in their actions.

The **teachers** showed positive gender attitudes in schools and rate their own gender sensitive teaching high. On the other hand the girls rated teacher's gender sensitive teaching lower than at baseline (4.2 on scale 0-10). Again, girls' expectations of teachers may be higher. They expect change to take place faster. According to the School Gender audit teachers were only partially trained in gender-responsive methods. All teachers have thus not received training yet. Thus there were changes in teachers' attitudes, but not in all teachers' teaching methods.

In the **school gender audit** most of the indicators were partially reached. There was an increase in the evaluation of gender sensitive teaching in the target schools (4.9 on scale of 0-10) compared to the control schools (0.43) ($p<0.001$). Teaching and learning strategies were also rated as more gender sensitive in target schools than in control schools (5.5 vs 2.8, $p<0.001$). Change is taking place in project schools. Schools implement the LCDE interventions, but do not take initiative beyond the LCDE interventions to improve girls' education.

The **interventions** that were rated as the most effective were: tutorial classes, provision of sanitary materials and counselling presented by teachers. Rewards for good achievement, teacher role models and community meetings were also mentioned.

Conclusion: The results showed that the project girls improved their literacy and numeracy, school achievement and attendance in comparison with the control group. There were prominent attitude changes among all stakeholders involved in the project. Though, these attitude changes have not resulted in a general change in action in all stakeholder groups. The girls that were made aware of the value of girls' education are waiting to see the changes in their parents' and teachers' behaviour. Interventions that had the largest influence on girls' performance were tutorial classes, provision of sanitary materials and counselling sessions presented by GEAC teachers.

Recommendation: It is recommended that LCDE spend time to strengthen the change that has started in all stakeholder groups. Change in attitude of parents must become visible in their behaviour to encourage girls to go to school and decrease domestic chores. Attention should be given to train all teachers in gender responsive teaching methods so that all girls can benefit. It is only when *all* teachers implement new teaching methods, that sustainable change will be possible.

1.Introduction

'Improved Girls Learning in Rural Wolaita' aims to improve girls' enrolment, retention, learning and school performance in 117 (now 123) rural elementary schools. Wolaita Zone is one of 19 zones in Southern Nations Nationalities and Peoples Regional State (SNNPRS). It has a population of 1.8 million and covers an area of 4,209 square km. It consists of 12 rural woredas and 3 town administrations. Wolaita has 453 primary schools and 27 secondary schools. There are 415,011 primary school learners (219,498 boys and 195,513 girls) and 52,114 at secondary level (29,696 boys and 22,419 girls). There are 6,280 primary teachers. Classroom to pupil and teacher pupil ratios are 1:73 and 1:70 respectively. In Wolaita Zone the predominant livelihood is subsistence farming and there is 77% extreme poverty, limited land for agriculture and increasing HIV/AIDS infection. Traditional cultural norms result in girls not having the opportunity to use educational opportunities.

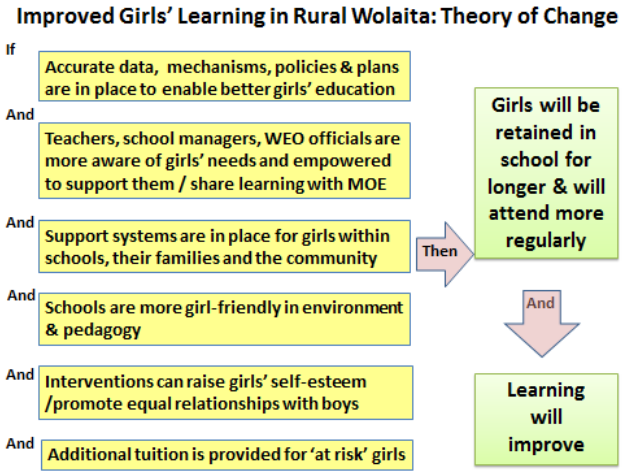
Working in all schools in four marginalised, densely populated woredas (districts) of Wolaita, the project aims to reach all girls in these schools. The definition of disadvantage/marginalisation includes all girls in schools in the woredas, because of poverty, remoteness and cultural beliefs. The goal is to facilitate educational systems change through development of sustainable models as part of the educational system. The project will engage multiple stakeholders and build on best practice to address underlying causes that prevent girls completing and performing in school.

1.1 Background to project

1.1.1 Project theory of change and assumptions

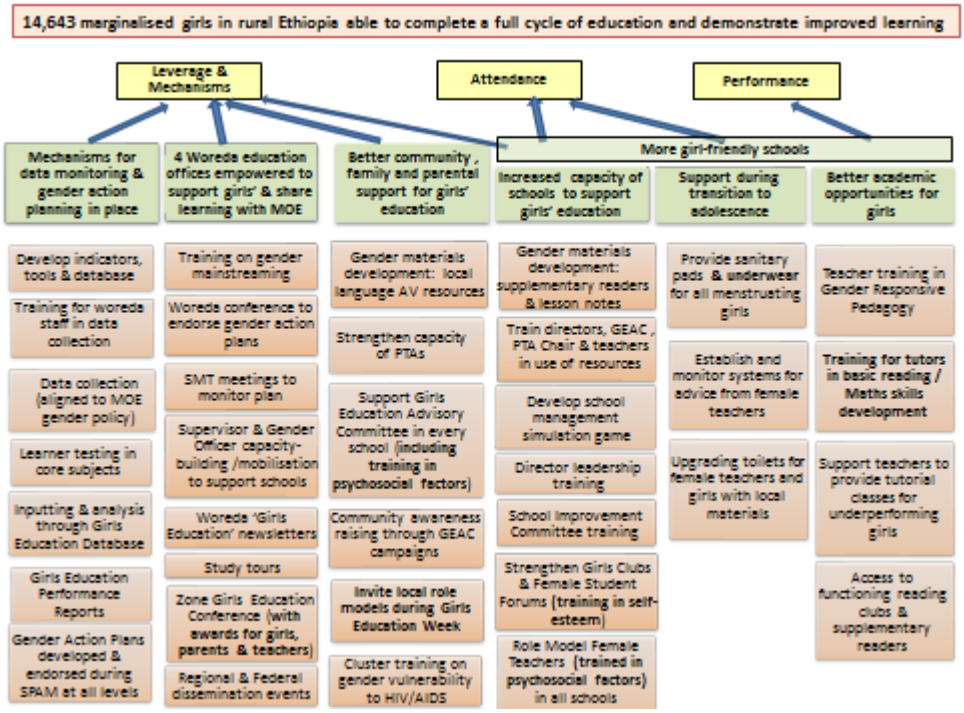
The most important barriers to girls' education in the woredas were found to be a community climate and traditional gender norms which does not prioritise education for girls; poverty and financial constraints to send girls to school; lack of support in families and the education system for girls; lack of school facilities such as separate toilets; lack of resources for girls to cope with menstruation and household chores interfering with school attendance and performance. An assumption in the project is that systems change in the educational sector and change in community attitude will assist girls to attend school and to perform according to their potential. Another assumption is that poverty cannot be addressed in a sustainable way by providing girls with resources, but that educational opportunities can eventually have an impact on poverty levels in die community.

The Theory of Change proposes that the holistic package of activities will contribute to local government officials, schools, parents and communities taking action to support girls' education. In addition to direct services provided for girls (e.g. gender sensitive education, toilet facilities, sanitary pads, tutorial classes), we suggested that having access to accurate information about the gender disparity and involving a wide range of stakeholders in planning for improvements will ensure ownership over the process of improving girls' learning outcomes at local level. It further assumes that involvement by parents, community leaders, school governors and managers, teachers and woreda officials in capacity-building training and awareness-raising activities will increase their understanding of the barriers to girls' education and their motivation and ability to address these barriers. The increased citizen engagement (identification of needs, participation in decision-making and monitoring of improvements) will lead to collaborative working as a key aspect of developing sustainable systems for improvement. In short, we intend to raise awareness, change attitudes and mobilise the various stakeholders to address these barriers and create a context to promote girls' education. The theory of change of the project is provided below.



1.1.2 Summary of interventions

Various interventions on different levels form part of the programme. The interventions are summarized in the diagram below. It describes how each intervention contributes to the various programme aims.



The interventions consist of **school and community mobilisation** through the development and monitoring of Gender Action Plans (GAP) by communities through School Performance Appraisal Meetings (SPAM). These are ground-breaking public meetings which develop awareness amongst parents and community members about barriers to education and how it can be addressed. The goal is to mobilise communities to engage in decision-making, set policy targets and hold local government institutions accountable for delivery. The aim of creating awareness among parents is to change their attitudes towards girls' education and to motivate changes in parental behaviour: Giving greater priority and providing resources for girls to utilise educational opportunities; supporting girls with managing menstruation; reducing domestic duties to allow for increased study time.

Capacity building at woreda level through training and mobilisation on gender mainstreaming is a critical link in increasing government responsiveness to the needs of schoolgirls. LCDE is taking an 'inside-out' approach so that woreda officials will be the key implementers of every activity– from the data collection, to school level training and support of implementation. Woreda officers will be able to implement the gender mainstreaming policy and access resources to support the implementation of the policy.

On the **school level** teachers are trained to present lesson plans and lesson delivery that are equally accessible to girls and boys and that all school policies and plans are gender sensitive. Interaction with boys and girls should be without gender stereotypes. Schools provide the infrastructure for girls to manage menstruation and give advice and counselling to make sure reproductive health issues and gender vulnerability are addressed.

On individual level, 12 000 girls most-at-risk of dropping out or failing a grade were identified by teachers for tutoring classes. Sanitary pads will be provided at schools for girls as well as support and life skills education to girls through the Gender Education Advisory Committee (GEAC) and girls' clubs in every school.

It is the aim of the project to create a climate in schools that will enable girls to attend school more regularly, be retained in school for longer (outcome 1) and increase their learning opportunities (outcome 2). The aim for this project is that the model is **scalable** in an Ethiopian context and **replicable** across other contexts as the key obstacles addressed by the project are common to many other regions and countries (outcome 3& 4).

1.2 M&E approach and research methods

1.2.1 Evaluation approach

A **repeated measures quasi-experimental design** is used to evaluate the impact of the interventions on various levels. This involves repeated measures at baseline, midline and end of the project. The outcomes of the target group that participate in the project and a similar control group that do not participate in the project, are compared to estimate the impact attributed to the project.

In the midline evaluation a mixed method design was used where quantitative and qualitative data are integrated. The **cohort** of 1500 girls identified at baseline in 30 schools were followed up in the midline evaluation. These girls form the target girls (n=750) and the control group girls (n=750). Each group consists of a group of senior girls (was Grade 6 at baseline, now Grade 8) and junior girls (was Grade 2 at baseline, now Grade4). It was planned to assess the same girls during the midline evaluation. When girls were not available for the evaluation they were replaced with similar girls.

In the midline evaluation 15% senior and 10% junior girls in the project group were **replaced** by new girls from the same grade group. In the control group 29% senior and 22% junior girls were replaced (described in the appendix 4). To determine the effect of the replacements on the data two analyses were performed:

- The baseline data of the cohort girls who participated in both assessments were compared with those who were not part of midline assessment, to determine if specific girls left the project. There were no statistical differences, except that the girls who left the project had higher EGRA and EGMA scores ($p<0.05$). The pattern of dropout shows that low performing girls dropped out of the control group, while higher performing girls dropped out of the project schools. The project schools succeeded in keeping weaker girls in schools. It may be that the project supports lower functioning girls to stay in school, while the same may not happen in control schools. It is worrying that higher performing girls drops out of the project schools. The implication is that it may be more difficult for the project to show positive results.
- In the second comparison midline results of cohort girls were compared with the newly replaced girls to determine the effect of the missing girls and replacement on the evaluation. There were no

significant differences. Replacement of girls at midline will therefore not negatively influence the project evaluation.

The parents of the cohort girls, teachers of the project and control schools and woreda officials were also assessed to compare results with the baseline data. In each group participants were chosen at random, where possible, to assure representativeness. Qualitative data was collected through 13 participative group discussions with various stakeholders, 4 key informant interviews and an open technology technique used in a large group of woreda officials. Table 1 represents a summary of the data collected as part of the midline evaluation.

Table 1 Data collection at midline

Indicators	Source of data	Method of collection	Who collected
Number of girls enrolled in each grade group	For 5 Woredas in project	Existing EMIS data 2014 2015	MOE EMIS systems at woreda level
Dropout rate per grade group	For 5 Woredas in project	Existing EMIS data 2014, 2015	MOE EMIS systems at woreda level
% girls that pass Grade 8 national exams	For 5 Woredas in project	Existing Grade 8 results, 2014, 2015	MOE EMIS systems at woreda level
Implementation of gender action plans	15 project and 15 control schools	School Gender Audit	Supervisors trained to administer the audit
Gender sensitivity of teachers	10 teachers in each of 15 project and 15 control schools	Teachers' survey	Supervisors
Gender sensitivity in woredas	Woreda officials part of the evaluation process	Woreda officials' survey	EMET
Data for cohort girls			
% days absent per month	Cohort sample of 750 girls in 15 project and 750 in 15 control schools.	School registers for past two years	School director & supervisor
Literacy and numeracy	Cohort sample of 750 girls in 15 project and 750 in 15 control schools.	EGRA & EGMA tests for Grade 4 and 8	Supervisors trained to administer the tests
Gender and education perception	Cohort sample of girls in 15 project and 15 control schools.	Girls' survey	Supervisors trained to administer the tests
Parents' attitude towards education and gender	Parent of cohort sample from 15 project and 15 control schools	Parents' survey	Supervisors
Qualitative data			
Change as a result of intervention	47 woreda officials from 4 intervention woredas	Open technology technique	EMET member
Change as a result of the intervention and sustainability	4 woreda and zone managers	Key informant interviews	EMET member
Change as a result of intervention	4 groups with girls (approximately 40 - 50 girls) in 4 intervention woredas	Participatory group discussions	Trained female teachers
Change as a result of intervention and boys' reaction	2 groups with boys (20 - 25 boys)	Participatory group discussions	Female teachers
Change as a result of intervention	2 groups with parents of cohort girls (20 - 25 parents)	Participatory group discussions	Female teachers
Change as a result of intervention	2 groups of school managers (12 - 15 members)	Participatory group discussions	Female teachers
Change as a result of intervention	3groups of female teachers from the 4 intervention woredas	Participatory group discussions	EMET member and female teachers

Strict ethical principles where applied during data collection. All participants were informed about the project and those who have not given informed consent at baseline, were asked to do so during midline evaluation. The revised Child protection policy and code of conduct were emphasised during recruitment and training of data collectors, and taking into account in the supervision of fieldwork. The woreda officials that collected the data have clearance as per Ethiopian government protocols for working with children. Safety protocols were in place during data collection similar to that during baseline data collection.

Data analysis

The data analysis for different parts of the data is described in Annex 4.

1.2.2 Limitations of the evaluation approach

In the process of data collection it came under our attention that the control school also received some gender-related interventions under the leadership of the woreda gender officer. She trained teachers to implement gender-sensitive teaching in schools. It is thus possible that these interventions could have influenced the participants of the control woreda.

The participants of the project schools participated in various interventions during the past two years. It is possible that their viewpoints changed to become aware of gender-sensitive education and that their perceptions and expectations have changed in the process. The participants that completed the questionnaires may have changed as a result of the project and completed the questionnaires from a different perspective.

The inconsistency of the EMIS data created a serious problem for the evaluation team because it influenced the outcome data. We cannot confirm that there were more enrolments and higher national Grade 8 examination results related to the project, because of the inconsistent official data that were at our disposal. Schools were founded and others moved out of the woredas under study, while official data to evaluate this was not forthcoming. Trustworthy overall drop-out data is also not available. We can, however confirm that girls in the project cohorts of both age groups dropped out significantly less than girls in the control cohort.

1.2.3 Monitoring approach

Monitoring continued according to the Monitoring Plan and Tools. The Monitoring Plan and Tools were adjusted during the Maximising Results application and initiation. These included the development and use of tools for the new activities including stationary distribution and attendance registers. Challenges in monitoring include EMIS data collection and inconsistent data as described in specific sections to follow.

2 Key Findings

2.1 What impact has the project had on marginalised girls' learning?

2.1.1 What impact has the project had on literacy outcomes?

The **cohort girls** in project and control schools who were now in Grade 4 and Grade 8 were assessed with EGRA and EGMA, similar to the baseline study. The gains in literacy since baseline, measured in terms of **reading fluency**, were calculated as the difference scores between midline and baseline scores for each girl in the cohort that completed both assessments. The gain of project girls additional to that of the control group (β) were calculated and performance against the targets of the project. A regression analysis was done to determine the significance of differences. An adjusted regression analysis was done to correct for intra-cluster correlations (ICC) which were 0.08 for senior and 0.04 for junior project girls and 0.03 for senior and 0.05 for junior control group girls. These results are given here.

Junior girls: In the group of junior girls, 337 project group girls and 294 control group girls completed both assessments. The Junior girls' reading fluency improved significantly compared to baseline and the control

group (Table 2). It is noted that there is a large variation in girls' scores. There were girls who could completed the task before the minute was over, with complete understanding, but there were 63% of girls that could not read the passage and stopped. Some girls are therefore doing extremely well, while a large number still have difficulties. Although much improvement is noted since baseline, the girls as a group are not on par with what is expected of Grade 4 reading. This is lack of performance vis-à-vis grade level expectations and is in line with national findings through the National Learning Assessments.

Table 2 EGRA scores for Junior girls

		Letter name Mean(SD)	Familiar words Mean(SD)	Invented words Mean(SD)	Reading comprehension % Mean(SD)	Listening comprehension % Mean(SD)	Passage reading fluency Mean(SD)	β	Effective sample size (ESS)	t
Project (n=337)	Baseline	17.3(16.2)	4.7(9.9)	1.6(5.4)	2.9 (10.2)	55.5(27.2)	2.7 (8.9)	7.55		5.4
	Midline	32.6(21.0)	17.6(19.9)	9.7(14.1)	15.5 (24.3)	56.4(25.0)	15.4 (23.0)		226	P<.00001
Difference score		**15.3(19.7)**	**12.9(16.8)**	**8.0(12.9)**	**12.6 (22.3)**	**0.8(33.0)**	**12.67 (21.49)**			
Control (n=294)	Baseline	14.8(15.6)	3.6(8.4)	1.7(5.3)	2.2 (7.8)	51.3(24.8)	2.1 (7.7)			
	Midline	21.1(18.2)	8.6(14.7)	4.1(9.2)	7.6 (18.0)	43.1(25.1)	7.2 (15.6)		67	
Difference score		**6.4(15.6)**	**5.0(11.2)**	**2.4(8.2)**	**5.4 (17.1)**	**-8.2(29.5)**	**5.12 (13.88)**			

ICC project girls 0.07; control girls 0.08; ICC adjusted confidence level p<0.047; statistical power 100%

The gains for the junior project group girls were significantly (p<0.0001) higher than the control group girls' on all subtests of the EGRA, specifically reading fluency.

The average difference scores (gains) for each sub-test on EGRA and EGMA for junior girls in project and control groups is illustrated in Figure 1. The gain of project girls additional to that of the control group **(β) was 7.5 for the junior girls**. The girls performed 109% against the target set for the project. The target was thus reached.

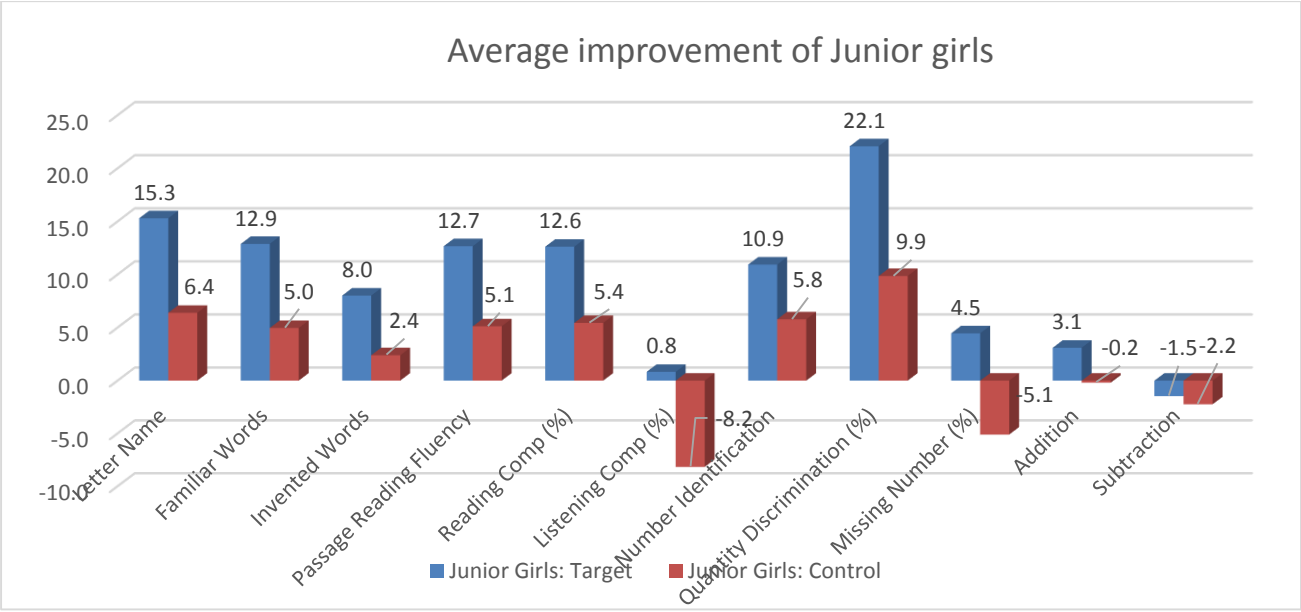


Figure 1 Improvement of junior project school girls compared to control group girls

Senior girls: The senior girls in the project schools' reading fluency improved significantly compared to the control group (p<0.0001). The comprehension ability of both groups of students were found to be still very low (9% for project girls at midline).

Each senior girl in the cohort's gains at midline were calculated by subtracting her baseline score from her midline score (n=320 project girls; n=268 control girls). The gain of project girls additional to that of the control group (β) were calculated and performance against the targets of the project (Table 3). A regression analysis was done to determine the significance of differences (adjusted for intra-cluster correlations).

Table 3 EGRA scores for Senior girls

		Word recognition Mean (SD)	Reading comprehension% Mean(SD)	Reading fluency Mean(SD)	β	ICC	ESS	t	Adjusted confidence level	p
Project (n=320)	Baseline	17.2 (21.4)	3 (8.6)	30.1 (31.9)	11.21			4.8	P<0.046	<.00001
	Midline	34.5 (28.5)	9.3 (15.7)	51.8 (39.8)		0.07	133			
Difference score		**17.3 (25.9)**	**6.4 (14.4)**	**21.7 (36.9)**						
Control (n=268)	Baseline	17.1 (20.0)	1.6 (5.6)	29.2 (29.9)						
	Midline	26.3 (24.9)	4.5 (11.0)	39.7 (34.1)		0.08	108			
Difference score		**9.2 (15.1)**	**2.9 (11.8)**	**10.49 (22.17)**						

Statistical power 100%

The gains of the senior project group girls were significantly higher than the control group girls on all subtests of the EGRA and EGMA. The gain of project girls additional to that of the control group **(β) was 11.2 for the senior girls**. The girls performed 101% against the target set for the project. The target was thus reached.

The average difference scores for each sub-test between the project and control groups is illustrated in Figure 2.

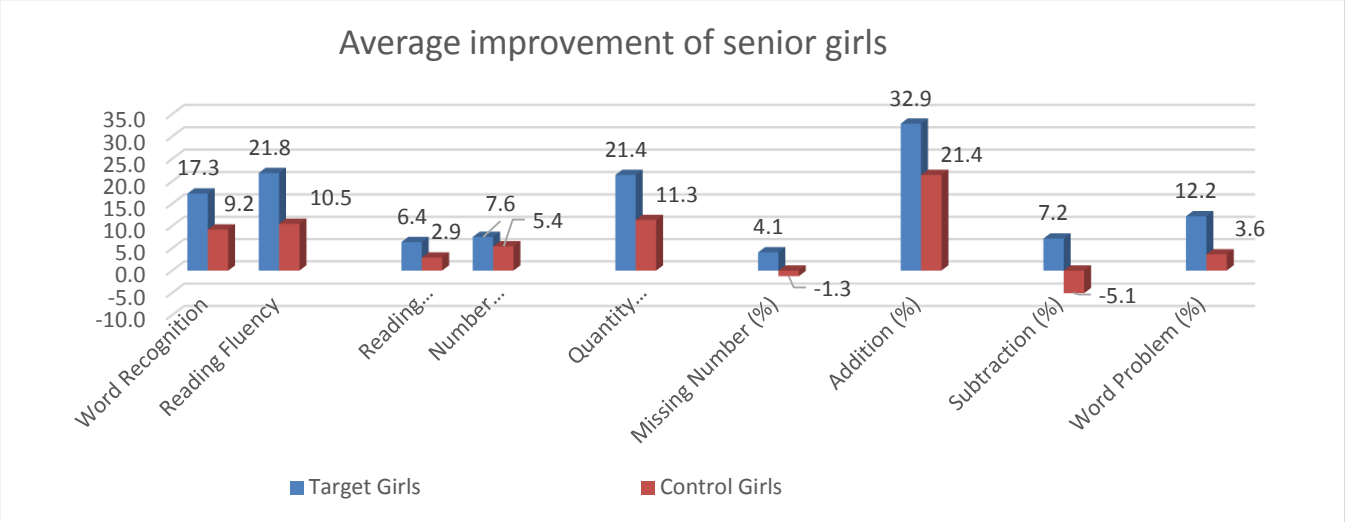


Figure 2 Improvement of senior project girls compared to control group girls

Summary: For both senior and junior girls in the project schools there were statistical significant changes in reading ability since baseline, compared to the control group (p<0.00001). Both junior and senior girls reached the set midline target.

Interventions related to girls' higher performance may be: raising awareness of the importance of girls' education through *SPAM; tutorial classes*; and *counselling* through GEAC and *teachers' training* in gender sensitive teaching methods. It must be taken into account that the English language ability of the senior girls

may affect their reading ability. Senior girls' low scores in reading comprehension may reflect a low level of understanding of English - though English is their language of instruction.

2.1.2 What impact has the GEC had on numeracy outcomes?

The numeracy outcomes were assessed for cohort girls in project and control schools using EGMA as in the baseline study. The numeracy score was compiled by adding all scores of the EGMA subscales expressed as a percentage. The tests that involved timing (number identification, addition and subtraction for junior students and number identification for senior students) caused a problem. Following internal discussions, the FM has arrived at a proposed solution to the problem of timing in EGMA subtasks which does not require the project to re-enter test data.

The suggested process was as follows:

Step 1: Timed subtasks' scores capped at reasonable levels (same for BL and ML) + Percent score calculated using the cap as max score.

Step 2: Aggregated using equal subtask weighting.

The precise formulas can be seen clearly below:

Junior cohort test					What FM has done	
		items	timed to 60 sec	scored in percent	applied cap at:	scored in percent
1	Number Identification	30	yes		60	yes
2	Quantity Discrimination	10		yes	nothing	
3	Missing Numbers	5		yes		
4	Additions	10	yes		30	yes
5	Subtractions	10	yes		20	yes

New EGMA final score = (Number Identification (%) + Quantity discrimination(%) + Missing Numbers(%) +Addition(%)+Subtraction(%))/5

Senior cohort test					What FM has done	
		items	timed to 60 sec	scored in percent	applied cap at:	scored in percent
1	Number Identification	30	yes		40	yes
2	Quantity Discrimination	10		yes	nothing	
3	Missing Numbers	5		yes		
4	Additions	5		yes		
5	Subtractions	5		yes		
6	Word Problems	5		yes		

New EGMA final score = (Number Identification (%) + Quantity discrimination(%) + Missing Numbers(%) +Addition(%)+Subtraction(%)+Word Problems(%))/6

The purpose of the above is to arrive at final EGMA scores out of 100. The score caps have been set based on two criteria: low enough to cut out clear outliers which skew the results; high enough to avoid too many observations which hit the maximum score (ceiling effect). The same procedure is followed in baseline and midline evaluation. The process of capping involved that the gains made by 58 girls during midline was not fully accounted for. This may skew the data in a downward direction. Because most gains were made by project girls, all gains by project girls are not captured in the total scores at midline.

Using this data, the gains in numeracy since baseline were calculated as the difference scores between midline and baseline scores for each girl in the cohort that completed both assessments. The gain of project girls additional to that of the control group (β) were calculated and performance against the targets of the project. A regression analysis confirm significance of differences.

The **Junior girls'** scores are given in table 4. The gains for the junior project group girls were significantly ($p<0.0001$) higher than the control group girls' on all subtests of the EGMA (except missing numbers) and the total score. The average difference scores for each sub-test between the project and control groups is illustrated in Figure 1. The gain of project girls additional to that of the control group **(β) was 8.97 for junior girls.** The girls in the project group performed at 141% against the set target for the project. The target was thus reached.

Gains in **Senior girls'** numerical ability compared to the control group is given in table 5 and illustrated in Figure 2. The gains of the senior project group girls were significantly higher ($p<0.0001$) than the control group girls on all subtests of the EGMA, except for missing numbers and subtraction. In these tests the gains were not enough, to be different than the gains of the control group. The total score also differed significantly. The gain of project girls additional to that of the control group **(β) was 8.82 for senior girls.** The girls in the project group achieved the set target for the project (110%).

Interventions related to girls' higher performance may be: awareness raising of the importance of girls' education through *SPAM; tutorial classes*; and *counselling* through GEAC and ***teachers' training*** in gender sensitive teaching methods.

A multiple regression analysis showed that senior girls' evaluation of *teachers' gender sensitive teaching*, their *perception of gender attitudes in education* and *community gender attitudes* contributed significantly to the change in combined EGRA and EGMA scores since baseline ($F=29.50$, $p<0.001$, $n=588$). A similar analysis showed that *attitude towards teachers*, *gender sensitive teaching* and *school attendance* played a significant role in change in scores from baseline to midline for numeracy (specifically addition) assessed by EGMA ($F=26.97$, $p<0.001$, $n=588$). These variables should be the focus of intervention during the last part of project implementation to enhance change in EGRA and EGMA scores.

Table 4 EGMA scores for junior girls

		Number identification Mean (SD)	Quantity discrimination% Mean (SD)	Missing numbers% Mean(SD)	Addition Mean(SD)	Subtraction Mean(SD)	Total EGMA Mean (SD)	β	ICC	ESS	F/t	Adjusted confidence level	p
Project (n=337)	Baseline	16.5 (13.4)	66.2 (34.6)	37.3 (25.4)	6.5 (5.9)	4.4 (4.7)	34.88 (20.83)	8.97				P<0.04	<.00001
	Midline	27.4 (15.5)	88.3 (22.8)	41.8 (25.2)	9.6 (7.1)	2.9 (3.8)	44.39 (17.10)		0.03	207			
Difference score		**10.9 (14.8)**	**22.1 (34.3)**	**4.5 (30.5)**	**3.1 (7.2)**	**-1.5 (4.9)**	**9.5 (19.04)**				F=39.47 T=6.28		
Control (n=294)	Baseline	15.3 (12.8)	69.8 (35.1)	40.3 (27.0)	6.9 (6.8)	4.2 (5.2)	35.89 (21.91)					P<0.001	
	Midline	21.1 (13.6)	79.7 (28.0)	35.2 (23.5)	6.7 (5.6)	2.0 (3.7)	36.42 (16.39)		0.12	93			
Difference score		**5.8 (11.9)**	**9.9 (36.1)**	**-5.1 (30.9)**	**-0.2 (5.7)**	**-2.2 (4.9)**	**0.53 (18.09)**						

Statistical power 100%

Table 5 EGMA scores for senior girls

		Number identification Mean (SD)	Quantity discrimination% Mean (SD)	Missing numbers% Mean(SD)	Addition% Mean(SD)	Subtraction % Mean(SD)	Word problem% Mean (SD)	Total EGMA Mean (SD)	β	ICC ESS	F/t	Adjusted confidence level	p
Project (n=320)	Baseline	9.8 (9.8)	40.4 (34.6)	14.8(22.7)	30.8(34.3)	48.6(35.5)	10.3(21.3)	28.21 (24.22)	8.82			P<0.043	<.00001
	Midline	17.0 (12.1)	61.9 (33.1)	18.8(26.4)	64.2(33.4)	56.2(35.3)	22.6(29.7)	44.26(25.17)					
Difference score		**7.6 (11.4)**	**21.4 (39.5)**	**4.1 (28.6)**	**32.9(39.7)**	**7.2 (41.9)**	**12.2(31.3)**	**16.05 (25.89)**		0.13 87	F= 27.2 T=5.2		
Control (n=268)	Baseline	8.5 (7.9)	39.8 (37.0)	12.9(19.3)	30.1(35.7)	48.4(36.7)	5.8(15.2)	26.42 (22.66)					
	Midline	13.9 (10.0)	51.2 (33.6)	11.6(19.1)	51.6(33.6)	43.4(32.9)	9.4(21.4)	33.65 (21.07)					
Difference score		**5.4 (7.6)**	**11.3 (34.4)**	**-1.3 (20.3)**	**21.4(36.6)**	**-5.1(33.0)**	**3.6 (23.1)**	**7.23 (17.3)**		0.13 81			

Statistical power 100%

2.1.3 Girls have increased their school performance in core subjects (cross sectional)

Another indicator to assess girls' school performance was to evaluate annual tests in core subjects for Grade 4 and Grade 7 internal examination and Grade 8 external examination.

Grade 4 and 7 core subjects: Based on baseline results the target was set for girls to increase their performance in core subjects to 41% for Grade 4 and 40% for Grade 7. Both these targets were reached (Table 6).

Table 6: Performance in core subjects over 3 years

	2013 baseline		2014		2015 midline		Disparity		
Grade 7 results	**Male (N=2733)**	**Female (N=2633)**	**Male**	**Female**	**Male**	**Female**	**2013**	**2014**	**2015**
Mathematics	31.7%	29.4%	44.6%	41.4%	55.3%	51.6%	2.3%	3.2%	3.73%
English	46.2%	41.7%	51.9%	48.4%	52.9%	50.6%	4.5%	3.5%	2.4%
Biology	51.0%	40.2%	48.8%	44.3%	54.6%	50.1%	10.8%	4.5%	4.5%
Physics	39.6%	36.4%	54.1%	47.37%	51.9%	49.1	3.2%	6.72%	2.9%
Chemistry	43.1%	37.4%	50.5%	44.9%	58.7%	54.0	5.7%	5.56%	4.7%
Average	**42.3%**	**37.0%**			**54.7%**	**51.1%**	**5.3%**	**4.7%**	**3.6%**
Grade 4 results	**Males (N=4489)**	**Female (N=3996)**	**Males**	**Female**	**Males**	**Female**	**2013**	**2014**	**2015**
Mathematics	41.5%	36.2%	58.5%	51.1%	52.9%	49.7%	5.3%	7.4%	3.2%
English	37.4%	34.8%	46.5%	43.2%	49.1%	44.8%	2.6%	3.3%	4.2%
Science	51.9%	45.4%	56.8%	52.3%	64.3%	61.2%	6.5%	4.4%	3.2%
Average	**43.6%**	**38.8%**			**55.4%**	**51.9%**	**4.8%**	**5.0%**	**3.5%**

The girls in Grade 4 improved their performance from 38.8% to 51.9% in the 3 core subjects (13.1% more in midline). The target for Grade 4 girls is thus reached. Boys improved their average score with 11.8%, almost similar to the improvement of girls.

The grade 7 girls improved their performance from 37% to 51.1% (14.1% higher). The Grade 7 girls thus achieved the target. Boys improved 11.8% in the same period.

The performance of girls improved at midline. It needs to be taken into account that the same test is not used every year. It is possible that the difficulty of the test can vary each year. Similar improvement in the performance of boys shows that the differences in the performance may be related to the test used or that everyone in the school improved.

Grade 8 pass rate: At baseline the average grade 8 pass rate for the intervention schools were 46.3% in 2003 (EC), 41.7% in 2004 (EC) and 51.8% in 2005 (EC). For the control schools the girls' pass rate were 12.1% (2003), 7.6% (2004) and 27.1% (2005). The target for the project schools was set at a pass rate of **49%**.

The Grade 8 pass rate data we received from the woreda authorities during the midline evaluation differed drastically from the previous results. The pass rate for 2003, 2004 and 2005 that was given in the baseline study, was drastically lower than the data given in the midline evaluation for the same time period. We can therefore not comment on the increase of Grade 8 pass rate over the years, because it is attributed to different recording and reporting of the results. It seems as if the pass rate criteria changed over time. The differences in the pass rates cannot be interpreted as a result of the project. The current results show that the

boys and girls in the project and control schools had similar scores at baseline. At midline the control group boys scored much higher than the boys in the project woredas (90.3% vs 80.8%). The difference between girls in the control and project woredas were less (81% vs 76.2%) (Table 7; Figure 3).

We raised the issue of invalid data. It must be noted that the issue of data inconsistency and/or inaccuracy was raised as the main risk factor in the planning of the project. The issue of data inconsistency is very complex. It is possible that the woreda implemented different ways of scoring the results. It was also mentioned that the woreda education authorities often prepare data to serve different purposes. However, we were assured that the data we have received are in line with the data that are available at Woreda, Zone, Region and Federal level. For our purposes we cannot use this data to evaluate girls' progress as a result of the project.

Table 7 Grade 8 pass rate for the past 5 years

Grade 8 passes in terms of all Grade 8 enrolments					
	2003 EC (2011)	2004 EC (2012)	2005 EC (2013)	2006 EC (2014)	2007 EC (2015)
Project School Boys	71.5%	63.2%	62.7%	70.2%	80.8%
Project School Girls	68.2%	68.1%	65.1%	75.5%	76.2%
Control School Boys	67.3%	55.8%	67.4%	84.3%	90.3%
Control School Girls	71.5%	55.6%	68.6%	86.4%	81.0%

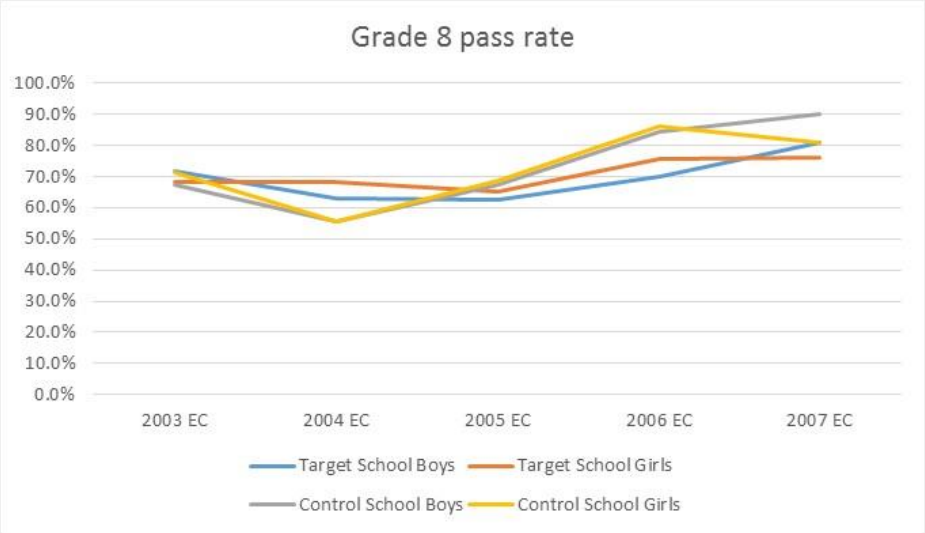


Figure 3 Grade 8 pass rate

2.1.4 Decrease in the existing disparity in performance between boys and girls in core subject test results and Grade 8 external examination

Grade 4 and Grade 7 core subject tests: Based on the baseline results targets were set for the decrease in disparity between boys' and girls' school performance. The target was a disparity of less than 2.5% for Grade 4 and 2.3% for Grade 7.

In the midline evaluation it shows that the performance of students generally improved over the past two years. Overall the disparity between boys and girls decreased from 5.3% to **3.6%** for Grade 7 and from 4.8% to **3.5%** for Grade 4. Despite the notable decrease in disparity, the target was not reached. It is interesting to note that the disparity between boys and girls *increased* in midline for English of Grade 4 and Mathematics of Grade 7 (Table 6).

Grade 8 results: In the baseline on average (for the three years) 6.8% more boys in the intervention group passed the Grade 8 exam than girls. In the control group 8.8% more boys passed than girls. The target set for the project was a disparity of less than **6.3%** in the Grade 8 examination. The data for the Grade 8 examination received at midline is completely different from that received at baseline. In the midline the disparity between boys and girls in the project woredas were **4.6%,** compared to 9.3% in the control group. The disparity decreased but the data cannot be compared over time (Table 7).

2.1.5 Were there any unintended effects?

The implementation team mentioned the girls seem more interested in science subjects as a result of the project.

There is a possibility that the performance of boys improved as well (in core subject tests). This might be ascribed to secondary influences of the project such as elevated awareness of the importance of education in school communities or because of a rekindled competitive spirit.

2.1.6 Has your project closed the gap in learning among marginalised girls?

Girls' reading and numerical ability improved significantly at midline. Some girls performed exceptionally well, with other still have difficulty. There is also decrease in disparity between boys and girls in their performance in core subjects (1.7% for Grade 7 and 1.3% for Grade 4).

2.2 What impact has the GEC had on enabling marginalised girls to be in school?

2.2.1 What effects has the GEC had on attendance?

The attendance of the cohort girls is analysed using the averages for the project and control groups since the baseline evaluation, September 2013. For this analysis two academic years are compared, the 2006 Ethiopian academic year (September 2013 to June 2014) and the 2007 academic year (September 2014 to June 2015). Data for the first months of the 2008 academic year (September to December 2015) was not included in this analysis.

Lower grades

This section investigates the changes in attendance for the cohort girls who started in grade 2 at baseline and are currently in grade 4. Figure 4 presents the overall attendance from baseline (2006 EC) until the end of the last academic year (2007 EC) (two full academic years).

The average number of days absent per month for the period September 2013 to June 2014 (2006) was **3.8 days** for the project group and **1.67 days** for the control group. The attendance for the project group was 80.5% and for the control group it was 91.3%. The average number of days absent for the period September 2014 to June 2015 for the project group was **2.28** and or the control group was **2.67** days. The attendance for the project group was 85.4% and for the control group was 83.8%. This relates to an **improvement of 4.9% for the project group** and a **decrease of 7.5% for the control** group.

- Statistical difference between project and control for 1st year: The difference **was** statistically significant (p=0.000, t=-4.06).
- Statistical difference between project and control for 2nd year: The difference **was not** statistically significant (p=0.665, t=0.44).

- Statistical difference between year 1 and 2 for project: The difference **was not** statistically significant (p=0.242, t=-1.21).
- Statistical difference between year 1 and 2 for control: The difference **was** statistically significant (p=0.000, t=4.16).

Although the project group still showed lower attendance for the first months of the second academic year their attendance improved and they had higher attendance at the end of the academic year. The project group attendance improved, while the control group decreased over the two academic years.

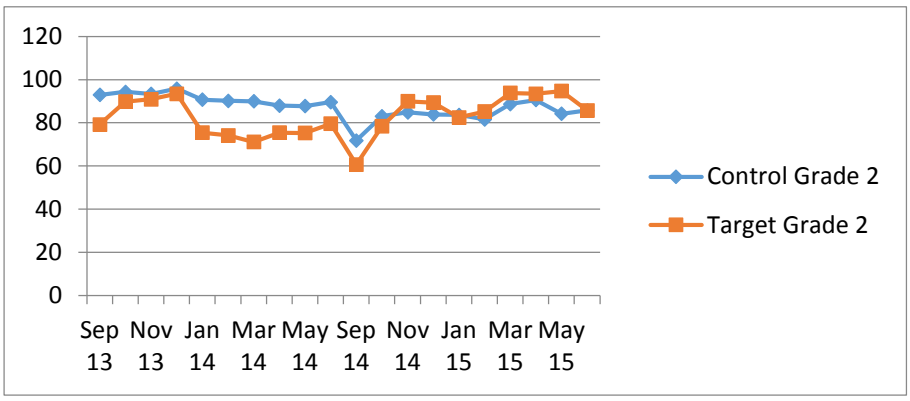


Figure 4 Attendance for lower grade cohort girls

If comparing the two years month by month (Figure 5) attendance improves during November and December. The lowest attendance is during September and again in January to March. September is directly after the holiday and Meskel festival. January to March is part of the dry season where girls may engage in petty trades on market days.

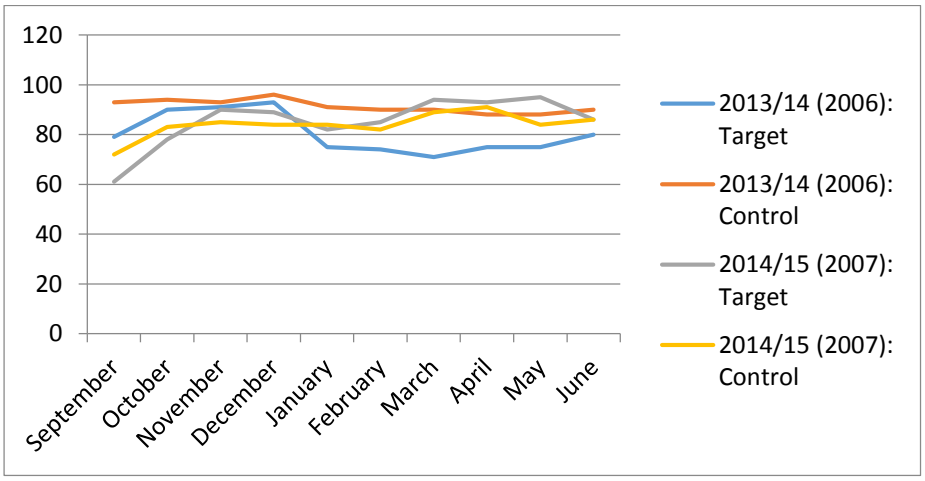


Figure 5 Comparison of two academic years per month lower grades

Higher grades

This section investigates the changes in attendance for the cohort girls who started in grade 6 at baseline and are currently in grade 8. Figure 6 presents the overall attendance from baseline till the end of the last academic year (two full academic years). The average number of days absent per month for the period September 2013 to June 2014 (2006) was **3.87 days** for the project group and **1.70 days** for the control group. The attendance for the project group was 80.5% and for the control group it was 91%. The average number of days absent for the period September 2014 to June 2015 for the project group was **2.23** and or the control group was **2.67** days. The attendance for the project group was 85.8% and for the control group was

84.1%. This relates to an **improvement of 5.3% for the project group** and a **decrease of 6.9% for the control group**.

- Statistical difference between project and control for 1st year: The difference **was** statistically significant (p=0.003, t=-3.41).
- Statistical difference between project and control for 2nd year: The difference **was not** statistically significant (p=0.609, t=-0.52).
- Statistical difference between year 1 and 2 for project: The difference **was not** statistically significant (p=0.218, t=-1.28).
- Statistical difference between year 1 and 2 for control: The difference **was** statistically significant (p=0.000, t=-4.12).

The project group for the higher grade cohort girls (similar to the lower grades) showed low attendance for January to March during the first year. Attendance was low the first months of the second academic year (September) and then their attendance improved. The project group attendance improved, while the control group decreased over the two academic years.

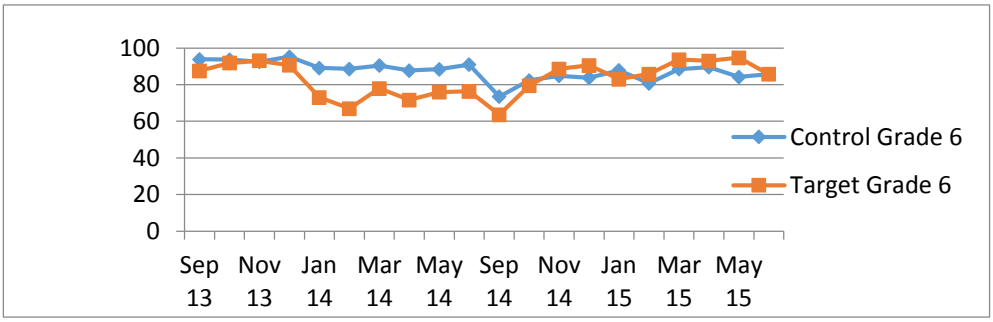


Figure 6 Attendance for higher grade cohort girls

If comparing the two years month by month (Figure 7) it seems that the trend is that attendance improves during November and December. The lowest attendance is during September, January to March. This is similar to the data for the lower grades.

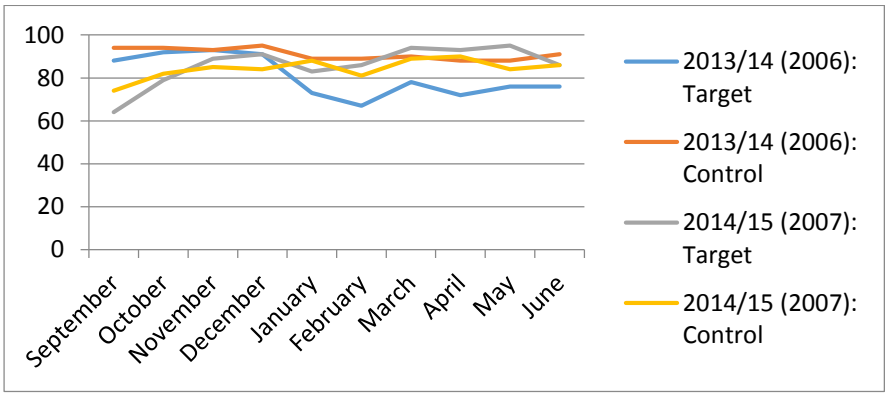


Figure 7 Comparison of two academic years per month for higher grades

Conclusion

The project and control groups differed significantly at baseline. For both grades the control group attendance decreased and the project group attendance increased for the groups to be more similar at midline. This could indicate that the natural trend for the region was rather a decrease of girls' attendance. The improvements for the project groups could therefore be even more significant than presented here.

The difference between the control and project groups at baseline was significant, while the changes over time were only significant for the decrease in attendance for the control group. When the time period September to December is not included in the calculation the difference in time for the project group shows statistical significance. Comparing an additional year (till end of project) will determine if the increase for the project and decrease for the control group will be sustained and lead to a statistical difference between the groups over the project life.

Interventions that could have an impact on attendance based on qualitative results are the provision of sanitary pads that allowed girls to attend school even when they menstruate. Awareness raising among parents through the SPAM meeting resulted in parents being aware of the importance of sending girls to school on time. The counselling through SPAM developed girls' self-confidence and aspirations to achieve well in school.

2.2.2 What effect has the GEC had on retention?

Retention/drop out data per woreda was obtained from woreda EMIS data. Dropout is defined as the number of students having been recorded as dropped out of school *during the school year* (September to June) and, not between school years. The calculation was done to obtain the percentage of drop outs per number of enrolments each year.

The total number of female drop-outs in project woredas were **485 (0.9% of the enrolment**) for 2014-2015, the midline evaluation period. This implies a decrease of 10% from baseline (drop out number=4986) and a decrease of 4.2% from Milestone 1 (number decreased by 2127) (Table 8). The target is thus reached.

Table 8 Percentage drop outs for project and control woredas for 5 years

Woreda	DropOut : 2003	DropOut : 2004	DropOut: 2005	DropOut: 2006	DropOut: 2007
			Sept 2012 to June 2013	Sept 2013 to June 2014	Sept 2014 to June 2015
Control woreda			Baseline	Ms 1	Ms 2=Mid
Soddo Zuria	1153	2629	1448	182	95
Drop out % of enrolment of the year	**5.7**	**13.3**	**7.5**	**0.9**	**0.4**
Target woredas					
Damot Woyedea	1967	2338	1137	474	244
Damot Sore	1644	2298	1718	963	75
Damot Pulasa	1130	588	1212	304	45
Kindo Koysha	1304	1664	1404	871	121
Target total	6045	6888	5471	2612	485
Drop out % of enrolments of the year	**12.2**	**13.2**	**10.9**	**5.1**	**0.9**

In the control woreda the number of drop outs for 2014-15 were **95 (0.4% of the enrolment** for the year). There is a decrease of 7.1% from the baseline. A similar trend can thus be seen in project and control schools.

The same analysis was done for boys in project and control schools. Drop outs in baseline was 6004 (10.7% of enrolment), 262 (1.1%) after 1 year and 94 (0.4% of enrolment) at midline. Drop outs thus decreased dramatically. The drop outs at midline is 1% of the drop outs at baseline. The same was found for the control group boys: drop out was 1636 (7.6% at baseline) and 94 (0.4%) at midline.

It can thus be concluded that in-year drop outs decreased at similar rates for the project and control schools as well as for boys and girls. The decrease can therefore not be attributed to the project. It can probably be attributed to different ways of reporting or adherence to nationally / regionally set targets for retention.

Another way to report on drop outs for the project, is to compare the number of girls in the project and control groups that dropped out of the cohort group. These girls were enrolled and present at baseline but dropped out or moved schools or were not available during the midline evaluation (Table 9).

Table 9 Girls dropped out from the cohort

Senior girls project schools	55 (15%)
Senior girls control schools	107 (29%)
Junior girls project schools	38 (10%)
Junior girls control schools	81 (22%)

The tendency was that girls in the control group dropped out more than in the project group.

2.2.3 What effects has the GEC had on enrolment?

Enrolment data was obtained from the official EMIS data of the woredas.

A target set for the project was to have higher numbers of girls enrolled in Grade 1 than in the baseline data. At baseline 11 499 girls enrolled in Grade 1 in project schools. The target set for midline was 12 074 girls in Grade 1. In the midline data there were more enrolments for girls and boys in the project schools. In 2007 EC (2014) there were 13 117 new Grade 1 enrolments for girls and in 2008 EC (2015) there were 13 531 new Grade 1 enrolments. There were also more boys' enrolments: In 2007 EC 14 146 and in 2008 EC 13 707 new enrolments in Grade 1. There are thus more enrolments in Grade 1 in project schools.

In the control schools there were less enrolments in 2008 EC than in 2007 EC for boys and girls.

These results cannot be attributed to the project because many environmental factors were not taken into account. There is no indication how many children of this age group are in the community and what percentage of the children started school and what percentage are not attending schools. We found out there are 8 more schools in the project woreda during midline than when the project started at baseline.

We have also learned that there was re-zoning of schools taking place in the area. There were 5 schools moved from the control woreda to be under the administration of another woreda. That resulted in the decrease in enrolment numbers for the control woreda. This change is thus attributed to environmental factors and not to the project.

Another strategy to estimate if more girls were going to school because of the project is to compare girls' and parents' reporting of the percentage of children in the household that attend school.

Table Percentage of children in the household that attend school

	Baseline data		Midline data	
	Project Group Average	Control Group Average	Midline project group	Midline control group
School enrolment of girls in household	Senior reporting: 93.4% Junior parent reporting 89.6%	Senior reporting 97.5% Junior parent reporting 92.1%	Senior reporting 95.1% Junior parent reporting 94.2%	Senior reporting 92.1% Junior parent reporting 99%
School enrolment of boys	Senior reporting: 87.2% Junior parent reporting 82.2%	Senior reporting: 94.8% Junior parent reporting 88.1%	Senior reporting 94.4% Junior parent 97.8%	Senior reporting 92.3% Junior parent reporting 95.2%

The reporting of children in the household attending school shows that more girls in the project group attend school during midline evaluation. The same pattern was reported for boys' school attendance. If it higher school attendance was the effect of the project, then it had a similar effect on boys and girls.

Senior girls in the control group reported less school attendance of the children in their household during the midline evaluation. Parents of junior girls reported the opposite. These numbers may strongly depend on the person who is reporting the data.

In an attempt to have a more complete picture of enrolment over time and the year-to-year loss of girls, the changes in enrolment from year to year was calculated. This reflects the expected through-put of learners year by year. Enrolment data in all grades of all schools in project woredas and the control woreda was compared for the past 6 years to identify the trends of enrolment and drop out in the two groups. The trends are illustrated for every 1 000 students that enrolled in grade 1 and eventually reach Grade 8 in the expected minimum time (Figure 8).

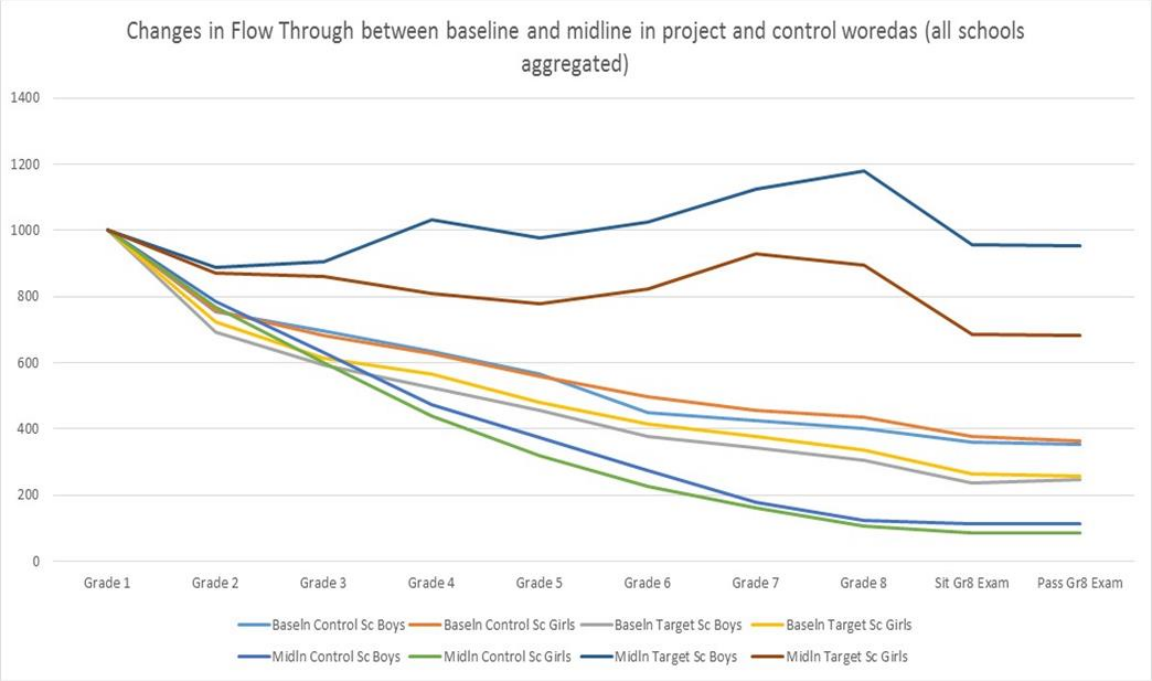


Figure 8 Enrolment and throughput over time

In the baseline data (4 middle lines on the graph) there is a steady year-by-year decline in student numbers which is almost the same for project and control group. These graphs show that for every 1000 students that enrol in Grade 1, 30 to 40% reach Grade 8 in the minimum time.

In the midline control group there is a sharp decrease in numbers over the years. For every 1000 students that start grade 1, 12% boys and 10% girls reach Grade 8 in the minimum time.

The midline target boys did not follow the expected year-by-year decrease in numbers observed in the baseline data. In grade 3 and 4 there are an increase in numbers of boys in these schools and again in Grade 7 and 8. According to these calculations more boys reach Grade 8 than the boys that entered Grade 1.

In the midline project group of girls a similar pattern is present. It seems as if not so many girls drop out of school as in the baseline. There is an increase of girls in Grade 7. Of the girls that entered Grade 1, 89% reach Grade 8.

To understand these results, it is necessary to understand the environmental factors that were taken place in the educational system at this time that influenced the data. The baseline data can probably be seen as the

normal pattern of enrolment and throughput in this area. The control group show drastic decrease in numbers. The re-zoning of schools where 5 schools were moved from the control woreda to be under the administration of another woreda, could have influenced the decrease in enrolment numbers in all grade groups. The results can thus be attributed to environmental factors and not to the project.

There are various ways to explain the unexpected trends in the project woreda. It is possible that not so many students drop out of these schools compared to the control group. The increase in numbers in specific grade groups can be explained by students who return to school after they dropped out of school previously. They can drop out of school for many reasons. One of the reasons for students to drop out is that the local school only caters for students up to a certain grade, such as first cycle (Grade 4). For example, if the school only caters for students up to Grade 6, the students that cannot afford to travel to another school to enrol in Grade 7, will drop out and restart school when the local school is upgraded to cater for Grade 7. These learners thus do not follow the normal progression in the school. This is relevant especially for schools in Kindo Koisha. At baseline there were 36 schools that catered for students up to Grade 4. Currently there are 42 schools. At baseline there were 24 schools that had students up to Grade 7, now there are 36. There are 8 more schools in the project woreda than when the project started two years ago. The numbers of students in these schools also increased.

The conclusion is that the patterns of enrolment and drop out of students in this data is largely related to environmental factors and not only to the results of the project. From this data it is not possible to conclude what the effect of the GEC is on the enrolment and drop outs in schools. The project could have influenced the need for more schools, but there is no evidence. There is also not a specific influence on the enrolment and drop out of girls, other than for boys.

2.2.4 Other outcomes mentioned by woreda officials

As part the qualitative data, 47 woreda officials identified the changes they observed in the schools due to the project. They voted for the most significant changes they observed (Table 10).

Table 10 Significant changes for the education system from the perspective of woreda officials

	Issues listed	Description	Votes
1	Increase performance/achievement	After counselling/tutorial programs; the performance of students (girls and boys)	20
2	Participation of girls in class	The tutorial classes; Girls education campaigns/awareness; weekly surgeries (GAEC interventions)	13
3	Attitude towards girls education changed	Big change of attitude happened towards girls education	13
4	Parents attitudes changed	Through surgeries, tutorials, counselling the girls and then extending to the parents at home	11
5	Society changes	The awareness campaigns to teach the importance of girls' education	9
6	Increased self-confidence of girls		6
7	Increased competition amongst boys and girls, Girls compete with boys	Girls are competing with boys and they score higher, girls now 1st, 2nd in class, They couldn't compete with boys, now they can and they excel	5
8	Girls more responsible for learning, parents are motivated to send girls to school	Parents are motivated to send girls to school and sure that the girls are responsible enough to pass and success at school	4
9	Decreased repetition rate	Girls achieve additional tutorial classes	2

10	Decreased fear of math and physics	Before it was hard, but now because of tutorials they have chance to learn more and understand it. Now they have it and it is interesting for them.	2
11	Decreased absenteeism of girls	Understanding their menstruating cycle – LCD helped with sanitary pads	2
12	Increased participation in many things outside the classroom	Clubs, community, etc.	2
13	Girls are proud to be female/women	No embarrassment to develop breasts/menstruate	2
14	Decreased drop-out of girls	By supplying sanitary pads/stationery	1
15	Girls less late at school	GEAC advisor talks/advises parents to give less chores to girls so they can be at school in time	1
16	Time management of girls improved	Counselling of girls/parents to teach them how to manage their time	1
17	Early marriages decreased	GEC counselling/awareness campaigns, importance of education. Teachers stresses importance to female students	1

The woreda officials mentioned mostly increased achievement of girls, more class participation, self-esteem and attitude changes, decreased absenteeism and drop outs. The qualitative data of all the participants mentioned these changes in schools and girls' behaviour.

2.2.5 Were there any unintended effects

More schools were established in the project woredas. This may be because of the project or different reasons. The in-year drop outs of all students (in the control group and boys) decreased which may reflect a different retention strategy implemented in all schools.

In a few schools married female students (including mothers of girls) and girls who previously dropped out returned to school due to the effort made by the GEAC and support given to female students.

Female students succeeded to convince some of their friends who wanted to search for jobs and those who wanted to get married or engage in trades to stay in school or to come back to school.

2.2.6 Has your project closed the gap in attendance/retention/enrolment among marginalised girls?

Girls in the project group's attendance increased during the time of the project, while attendance of girls in the control group decreased. The qualitative data strongly suggests more attendance and lower drop out of girls in project schools, because of the access to sanitary protection, less household chores and intervention by GEAC to reduce drop out and invite girls who have already dropped out back to school.

The quantitative EMIS data does not allow us to confirm lower dropout rates, as lower drop outs were present for the control group and for boys as well.

2.3 To what extent has the GEC reached and impacted on marginalised girls?

Marginalised girls for this project included all girls in the project schools for the four woredas as clarified with the portfolio manager at inception of the project. Since girls were all deemed disadvantaged the project included all girls and not a specific group (or more vulnerable subgroups). Though, girls deemed to be 'at risk' of failure or dropping out were identified for tutorial classes. The project target areas are rural and removed from town centre, yet with high population densities and 77% severe poverty. Subsistence farming is the prevalent livelihood in a context of limited land for agriculture and increasing HIV/AIDS infection. Fertility rates are high. Barriers to girls' education consist of a culture where girls are part of the domestic work force.

The limited resources available are rather spent on boys' education. Adolescent girls do not have sanitary provisions and lack information on biological issues as well as gender friendly infrastructure such as female toilets and sanitary rooms. Girls therefore do not always attend school and their performance is significantly lower than that of boys. Girls are further marginalised because the school system is not optimally gender friendly despite legislation and policies. This influences performance of girls. This definition of marginalisation continued to be used through the project lifetime.

The project targeted to deliver the programme to 114 schools in 30 clusters in 4 woredas. However, at the time of the midline evaluation the project covered 123 schools. Nine new schools opened in the target woredas and were included in the GEC project (within the same budget). In addition a number of schools teaching only lower grades are gradually increasing their scope to include higher grades. This had implications for the enrolment and drop out figures, as discussed. Unfortunately the EMIS data could not be disaggregated to exclude or further examine the influence of these changes.

Beneficiaries of the project

All girls enrolled in primary schools (Sept 2015 for the 2015/16 academic year) at midterm in the four woredas are regarded as direct beneficiaries (62,777) at midline (Table 11) because of the systemic changes in the project. The total number of beneficiaries reach at the time of the midterm includes enrolment at baseline and new grade 1 enrolments for the following two project years (a total of 77,642 target and 27,863 control girls and 84,225 boys). Certain girls were included in additional activities. These included:

- Tutoring of 12 566 girls (12 155 girls included at midline). The initial target for tutoring included 18 113 (105 girls for each of 115 schools 2013/14 and 2015/16 with 50% double counting between years 1 and 2) and 56 683 as the number of unique individual girls who would participate in the project (Year 1 enrolment plus new entrants to G1 in 2014/15 - year 3 G1 entrants would only have 4.5 months of project inputs so were not counted). Tutorial coverage will be much higher as there are now 123 schools included in the project and the whole project was extended by 13 months meaning the year 3 girls should be included and it is the year 4 girls who will only get limited inputs.
- Weekly surgeries (counselling) with 24 133 girls (In total 579 192 sessions were conducted until midline – 24 per girl).
- Beneficiaries receiving sanitary supplies:
    - Sanitary pad beneficiaries: 17 403 girls
    - Soap: 51 528 girls
    - Sanitary boxes: 884 girls

The number of marginalised girls who are projected to have improved learning through GEC project included assumptions that:

- 55% of tutored girls would improve learning, and
- 10% of all other girls would improve learning.

Table 11 Direct beneficiaries

Beneficiary type	Total project number at time of midterm	Total number of girls targeted for learning outcomes that the project has reached by midline	Comments
Direct learning beneficiaries (girls)	56 000	77 642	The number of girls enrolled per year is as follows: 2013/14: 50 994 2014/15: 54 672 2015/16: 62 777

Table 12 Other beneficiaries

Beneficiary type	Number	Comments
Learning beneficiaries (boys)	At midline 70591 (total reached through project lifetime 84225)	These are boys at schools that benefit from the systemic changes
	7 503 adult stakeholders	
Teacher beneficiaries	472	Gender Response Pedagogy (3 day course)
	32	Construction of performance testing (PMT)
	468	Basic maths and English training - English tutoring teachers
	76	Basic maths and English training - deputy head teachers
	842	Training in use of resource materials - Teachers & senior school staff
	2 000	Gender vulnerability taught through teacher's guides
Teachers and student leaders	370	HIV/AIDS training
GEAC members	134	Psychosocial training
Club co-ordinators	956	Self-esteem training
Class supervisors	46	Class supervisor training (repeated every 3 months, not aggregated in numbers)
School management and governing structures		
School directors	194	Leadership training
SIC members	575	Follow-up training in monitoring progress toward girls education targets
PTA members	690	Training in monitoring GAP implementation
Education officials		
Senior officers	317	Gender vulnerability training
Woreda education officers	108	Expert training
Supervisors and experts	106	Data collection training
Broader community beneficiaries (adults)		
Families of girls	12 300	100-120 community members per school participate in SPAM. There were several GEAC campaigns involving mothers.
Local female role models	134	Training and assistance in preparing presentations
Various stakeholders	Not tallied	Data collection methods

Table 13 represents the breakdown of the beneficiaries per school level and Table 14 illustrates the age breakdown of the sample included at midline. Data on ages of all girls in the project is not available, an estimate for the grades is provided (although the ages vary and this classification is not accurate).

Table 13 Target groups – by school

School Age	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at midline
Lower primary	√	40710	Evaluation group 337
Upper primary	√	22067	Evaluation group 320
Lower secondary			
Upper secondary			
Total:		62777	[This number should be the same across Tables 3, 4, 5 & 6]

Table 14 Target groups – by age

Grade Groups	Project definition of target group	Number targeted through project interventions	Sample size of target group at midline
Grade 1, 2 (6 – 8 years old)	√	24963	
Grade 3 to 5 (9 – 11 years old)	√	22350	Evaluation group: 337
Grade 6 and 7 (12 – 13 years old)	√	11122	
Grade 8 (14 – 15 years old)	√	4342	Evaluation group: 320
Total:		**62777**	

As all girls from all the schools in the four target woredas are included in the intervention, no further disaggregation was done on types of vulnerability or social group other than disabilities (see Table 15). The intervention focused on in-school girls although some out-of-school girls might be reached indirectly. They are not counted as beneficiaries of the project.

Table 15 Target groups – by social group

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at midline
Disabled girls	√	**346**	**Not included as a separate group**
Total:			

LCD Ethiopia works through the formal school system targeting all girls and working systematically across all schools and relevant structures. Girls were mostly reached through the GEAC in schools, girls' club activities and tutorial classes presented by teachers, as well as normal schooling.

Key household/individual characteristics are given for baseline and midline data collection to compare the groups over time (Table 16).

The project and control groups were fairly similar at baseline. There were some changes at midline which can be attributed to replacement of girls or different reporting. We reported that no significant difference was found between cohort girls who stayed part of midline and those who drop out of the cohort at midline. The only difference were that girls who left the cohort had higher EGRA and EGMA scores. This will make is more difficult to prove significant change.

Table 16 Baseline and midline characteristics split between groups

Characteristic	Project Group Average	Control Group Average	Difference	Midline project group	Midline control group	Difference
Age	S 13.4 J 9.3	S 13.2 J 9.5	P<0.05	S 14.7 J 11.3	S 14.8 J 11.5	
Socio-economic	61.7% not enough	88.8% not enough	P<0.01	59% not enough	90% not enough	P<0.01
Father's occupation	81% farmers	89% farmers		75% farmers	88% farmers	
Father's level of education	35% none 46% primary	28% none 54% primary		31% none 45% primary	46% none 41% primary	
Mother's level of education	52% none 39% primary	49% none 45% primary		50% none 38% primary	52% none 40% primary	
School enrolment of girls in household	Senior reporting: 93.4% Junior parent reporting 89.6%	Senior reporting 97.5% Junior parent reporting 92.1%		Senior reporting 95.1% Junior parent reporting 94.2%	Senior reporting 92.1 Junior parent reporting 99%	
School enrolment of boys	Senior reporting: 87.2% Junior parent reporting 82.2%	Senior reporting: 94.8% Junior parent reporting 88.1%		Senior reporting 94.4% Junior parent 97.8%	Senior reporting 92.3% Junior parent reporting 95.2%	

At baseline we did a thorough analysis of differences between characteristics of the project and control group. There were several differences between the groups, but the effect size of the differences were very small. The two groups were then accepted as comparable in terms of demographic variables.

Baseline and midline characteristics of the participants were compared. Although the average age of girls increases, it did not increase with 2 years as expected. We learned that children do not have identity documents to verify dates of birth. They have an approximate idea of age (based on what they have been told - often in relation to some event in their village which was around the time of their birth) and therefore do not report their exact age.
The difference in socio-economic status between the two groups increased at midline. The table illustrates only one choice of the 5 options of the level of poverty girls observe in their own households. This is a very subjective measure as it represents a girl's view of how well-off a family is. If the full scale is used and the groups compared at the hand of this, the groups are not statistically different. The unexpected slight positive shift of project group girls from baseline (when their parents experienced a good season) to midline (when there was a drought) can hardly carry statistical weight. It was accepted that the groups were balanced when taking the full scale into account.

The other variables gave similar results in baseline and midline.

2.4 What has worked, why and with what effects?

2.4.1 How has the project performed against its target outputs?

The project's performance against its target outputs is outlined below and illustrated from the quantitative and qualitative data. In section 2.4.2 we give an analysis of which interventions the different stakeholder groups regarded as having the most effect on girls' attendance and performance.

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
Output 1: The proportion of schools with appropriate Gender Action Plans (GAP) that have disseminated them to the appropriate stakeholders.			

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
1.1 Gender Audits (process of data collection and analysis) are developed for schools and woredas	developed	developed	achieved
1.2 Annual gender audits involve a range of stakeholders and provide accurate data	Gender Audits done in 117 schools	Gender Audits done in 117 schools	achieved
1.3 Gender Action Plans in place in schools and woredas based on real needs identified	In place in 117 schools	In place in 117 schools	achieved
1.4 Gender Action Plans implemented in 117 schools and 4 woredas	GAP implemented in 117 schools	Fully achieved (42.5% tasks) Partially achieved (52%), not achieved 5.5% 4 schools did not implement any part of GAP	Partially achieved
1.5 Gender Action Plans monitored in 117 schools and 4 woredas	GAP monitored in 117 schools	GAP monitored in 117 schools	achieved

Gender audits were done in all schools and fed back to stakeholders in each school. Based on the feedback gender action plans (GAP) were developed in all schools. Not all schools fully achieved all goals of the action plans. Plans mostly fully achieved were:

- Methods of supporting female students (55%)
- Teaching and learning (49%)
- Establish gender education advisory committees (GEAC) (46%)

Plans completed least were: school relationship with external bodies, instilling science, maths and technology in female students, community support for females.

3 schools implemented at least 5 of 9 tasks fully; 4 schools did not implement any of the 9 tasks.

Output 2: Increased ability of support systems (parents and community) enabling girls to attend school			
2.1 Parents reporting more support for girls' education	*Parents support scale 5.57 (0-10)* School collaborate with parents (20%) Awareness raising of girls' education (25%) Mobilisation of parents to reduce house chores (55%)	Parents support scale: target 4.6 vs control 3.9 (p<0.001). Senior girls' parents' gender perception in education: target 4.5 vs control 4.2 no difference. Junior girls' parents' gender perception in education: 4.8 vs 4.0 (p<0.001). Household chores still a factor affecting attendance and School collaborate with parents (7% fully achieved, 87% partially) Awareness raising of girls' education (7% achieved, 93% partially) Mobilisation to reduce house chores (7% fully, 80% partially, 2 schools none)	Target not achieved, but more parental support in project schools than control
2.2 Girls reporting more support from parents to assist them in attending/achieving at school	*Girls' rating of parental support* Grade 6: 6.1 Grade 2: 7.5	Girls' rating of parental support: Seniors: project 4.5 vs	Target not achieved. Girls in project schools rate parental

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
		control 3.8 (p<0.001) Juniors: project 5.0 vs 4.88 no difference. 16% teachers regard parents as supportive and 71% as sometimes supportive	support more positive than control group
2.3 Percentage of parents reporting that they feel more included in school planning and decision-making processes	Attending meetings: 50%, Aware of communication channels: 80%, Participate to enhance education: 65%	Attending meetings: 53%, Aware of girls rights to education 75% Aware of communication channels: 48%, Participate to enhance education: 39%	Parents are aware of value of girls' education, but not as involved as planned. Awareness not visible in active behaviour
2.4 Percentage of parents reporting that school authorities and local government are more responsive to their needs	Satisfied with teachers: 40%, Satisfied with school management: 40%	11% parents think there is enough support in schools for girls; 41% do not think so.41% think learning conditions for girls improved, 38% same, 19% less. Not satisfied with classrooms 46%; with books 58% Satisfied with teachers: 6%, Satisfied with school management: 10%	Target not achieved. Parents not satisfied with schools' response to girls' needs
2.5 PTA / GEAC demonstrate increased capacity to incorporate girls education targets into annual plans and reviews	30%	No data on capacity of PTA. GEAC functions well to help girls. 1 school activates community to collaborate, 14 does that partially.	
2.6 Percentage of girls reporting more encouragement by parents as one reason for increasing attendance at school	Grade 6 parents support attendance: 40%, Encourage achievements: 40%, Grade 2 support attendance: 50%	**Senior** girls' parents support attendance: 21% Encourage achievements: 21% **Junior** girls' parents support attendance: 18% always, 75% sometimes Parental support not a main reason for improved school attendance. Senior girls: 13% helped a lot; 65% helped a bit; junior learners: 12% helped a lot, 78% helped a bit.	Target not achieved: Parental encouragement helped girls somewhat, but lower than expected.
2.7 Percentage of girls reporting improved self-esteem due to Social and Emotional Learning (SEL)	40% of girls report improvements Only qualitative baseline data.	Target group 6.2 vs. control group 5.3 (p<0001). 55% rated that SEL helped to improve self-esteem	Achieved
Parents' support for girls education is lower than in the baseline study and target set (5.57 on scale 0-10), but the parents in the project group report that they show significantly more support for girls' education than the parents in the control group (target X=4.63 (SD1.4) vs control X=3.90 (SD 1.77), p<0.001). Parents in the project group had more positive perceptions of the value of education for girls than parents in the control group (project X=4.8 (SD 1.55) vs control X=4.0 (SD 1.37), p<0.001), but it does not differ from the baseline data. Household chores are still a factor affecting attendance and performance (77% parents said it affect girls' school attendance and performance). 2% parents decreased household chores very much, 79% somewhat and 18% did not. (In control group 36% did not decrease it at all.) 10% can provide girl with light in the evening to do school work, 76% can somewhat do that and 14% cannot.			

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance

86% parents have financial difficulty to send their girls to school.

46% parents know that there is not enough support in the family for girls to succeed in school; 13% parents encourage girls very much to go to school and 82% somewhat. 4% help children very much with school work and 77% somewhat. Parents' attitude towards girls' education is not more positive than in the baseline data:

- 58% believe girls could leave school before completing Grade 8 (43% in baseline)
- 76% believe girls learn less in school than boys (46% in baseline)
- 26% agree that girls are as clever as boys and 64% disagree
- 71% agree that boys' education is more important when money is scarce
- 51% disagree that boys and girls should share household chores.

Parents do not directly participate more in school activities than before. They attend meetings, but are not involved in schools' decision making. Parents also do not see improvement in schools to the level the project hoped for. 41% think learning conditions for girls improved, 38% regard it the same, and 19% think it is less. (In the control group 65% regard learning conditions the same and 27% less). Parents thus did not change enough to reach the project targets, but differ positively from the parents of control group girls at the time of the midline evaluation.

Because of the programme's focus on creating awareness among parents and community members about the importance of education for girls, there were some change in attitude in families. This created opportunities for girls to attend school and do school work.

- "Parents attended the SPAM meetings where they became aware of children's school performance and became involved in schools to improve the situation. Parents watched the movies presented about girls' problems and were present when role model women addressed the girls in schools. The most important was parents' encouragement of girls to attend school and change in assignment of domestic chores" (Teachers group discussion).

The qualitative data showed that some parents were eager to assist the girls. Some parents said they reduced or re-distributed home chores differently between all children so that girls could go to school on time. Some only gave chores after school. Some reported that they showed interest in the girls' education by giving advice and asking what they have learned to encourage them. One parent said that they rented a room in a close proximity to the school where the child can learn and study in relative comfort.

- "I have changed ever since I listened to that girl from last year (presentation at school) and tell my wife to let my daughter use the kerosene lamp to study"(Parents' group discussion)
- "I was happy to see my son speaking in English with white people, guests from the region at a high school graduation ceremony and vowed to teach the rest of my children" (Parents' group discussion)

Parents became involved in the school of their children. They appreciate it that their opinions were asked:

- "Thanks to God, organisation and the government are doing us good. They asked the opinions of parents and show a direction. No organization has come to discuss with us in the long history of our school except for LINK. The school is in need of various things. It would be good if the organisation seek out these needs of our children, as it is already doing, and we would be willing to raise contributions."

On the other hand, some parents do not want to be involved in school affairs:

- "Some parents get angry when they are summoned to school to discuss the wrong doings of their children and refuse to go."
- "I used to tell my daughter to take her father to school as I am busy at home. But, I am now convinced of the benefits of going there myself."

Girls' rating of parental support is also lower than in the target set (Grade 6: 6.1 and Grade 2: 7.5 on scale 0-10). In the senior group (Grade 8) the project group rated parental support more positive than the control group (target X=4.49 (SD 2.21) vs control 3.8 (SD 1.97), $p<0.001$). In the junior group (Grade 4) there was not significant differences in their rating of parental support: project 4.99 (SD1.91) vs control X=4.88 (SD 1.97). Most of the senior girls indicated that their parents *sometimes* support them to go to school (68%), they *sometimes* pay for what they need for school, *sometimes* encourage them to do well (64%) and *sometimes* decrease their household chores (63%). The junior learners said their parents *sometimes* encourage them to go to school (75%), *sometimes* provide financially (78%) and

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance

sometimes give them time to do school work (69%). Parental support is thus not strong.

The girls may have evaluated parental support lower than at baseline because they became aware of what was expected of parents through counselling at schools and the creation of awareness. The perspective and expectations of the girls may have changed. In baseline there was a tendency for older girls to be more critical of their parents. The younger girls have grown up in the past 2 years and seems to be more critical of their parents as well.

Some girls experienced encouragement from their parents:

- "They support me even though their means is limited. Their attitude has changed. They buy me exercise books and pens, clothes and shoes."
- "My family enabled me to study by allowing me to use the kerosene lamp during the night hours and by reducing the household chores. Fortunately, my family is educated and government employed".
- "They allow me to go to tutorial classes when I have one. This is due to the awareness creation."
- "Attitudes of parents changed. Before they used to say: "Girls and cats should be around in the kitchen room. Now they invite us to study. They now read our marks and get fuel for the lamp and soap." (Girls group discussion).
- "Parents encourage their female children to learn and get a job in government office rather than hoping to inherit a small piece of land. They tell their daughters to learn from the success of role model women and say **"**educate yourself to become one of them" (Teacher group discussion).
- Mothers were reluctant to send their daughters to school before LINK came to our area. Now, they share household chore equally with boys. Mothers then allow their female children to attend schools after they are given awareness creation trainings on the importance of female education (Boys group discussion).

Unfortunately this is not the case in all families. Some girls still have difficulty to get the support of their families for their education:

- "My family does not care much about education and they don't care if I learn or not."
- "They don't help me. They think it is my excuse not to do household chores."
- "My mother says that well paid people are preventing her from doing her job and she refuses to let me use the kerosene lamp to study claiming that I am wasting the gas she buys with her low income."
- "Both my mother and father never attend school meetings and my mother obstinately refuse to leave her house, children and cattle behind to attend useless meetings."

The main interventions for parents in this project is the SPAM meetings raising awareness among parents and the GEAC meetings for girls and their mothers to discuss girls' barriers to education.

Girls' self-esteem:

Girls' **self-esteem improved**. Because of all the pressures they experienced they had low self-esteem before. They did not talk to people (family, friends) because they did not feel good about themselves and were shy. Because of the training of the teachers and awareness, there has been a change. They became aware of the value of education:

- "Mothers from the past days were not able to sign and had to dip their fingers in ink to make a signature. I made comparisons between those females who went into early marriage who lead a down trodden life in the countryside and those who pursued their studies and learned the big difference. I observed the way the educated ones dress themselves, the meals they eat and I decided to continue my education." (Girls' group discussion).
- "My mother curses her bad luck when she see her educated friends and blame her family for depriving her the chance to study. She kept telling me the wonderful chance I am now getting. I see her struggling in life as a house wife and understood that education will relieve me of experiencing the miseries my mother had to live with." (Girls' group discussion).

The successful female models they met helped them to improve their self-esteem. Now that they see their own value, they are more open towards their teachers and others. They are aware they are equal to males and developed self-confidence (Teachers group discussion).

Girls in the project group rated their self-esteem significantly more positive than girls in the control group (project group X=6.2 (SD 1.98) vs. control group X=5.28 (SD 2.25), p<0001). The Social and Emotional Learning (SEL) programme was implemented only in a few schools to date. In the project group, 55% girls rated that SEL programme helped them to improve their self-esteem. 62% girls believed that they can learn what is taught in school, compared to 34% in control group.

Qualitative data showed that change in girls' self-esteem is an important reason for better achievement of girls.

- The predisposition of female students in looking down upon themselves has decreased. They participate more in education with

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
a motto "I can be successful through education." • The development of girls' skills to openly express their opinions. (School management team group discussion). There are a few questions that showed that much improvement in girls' self-esteem is still needed: • Only 19% girls believed they are just as good as the boys in their class, compared with 57% who does not. • 46% sometimes feel like a failure • Only 29% senior girls and 31% junior girls believed they could do difficult work if they tried, while 30% did not.			

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
Output 3: More girl-friendly schools as a result of increased capacity of schools to support girls' education			
3.1 Increased capacity of school directors and school improvement committee members to incorporate girl's education targets into annual plans and reviews	GAC at school: 100%, GAC active 25%	86% schools (13) have GAC GAC active in 20% schools (3), partially in 12 schools. 8 schools have gender policy, 6 partially; 8 schools partially allocate resources to address gender issues, 7 none.	Almost achieved
3.2 Percentage of GAP targets/actions have been undertaken	10% implementation	GAP activities fully achieved (42.5% tasks) Partially achieved (52% tasks), not achieved (5.5% tasks)	Achieved more than expected. Curriculum and teaching methods different from control schools.
3.3 Teachers reporting positive changes in gender perceptions and gender sensitive teaching	Teachers gender perceptions: 7.9 (scale 0-10), Teacher gender sensitivity teaching: 7.5, Girls' evaluation of gender sensitive teaching: 5.8	Teachers gender perceptions: 6.9 vs 5.5 (scale 0-10), ($p<0.001$). Teacher gender sensitivity teaching: 6.9 vs 6.2 ($p<0.001$). Senior girls' evaluation of gender sensitive teaching: project group 4.2 vs. control group 3.3 ($p<0001$). Gender audit: 93% (14) schools: teachers partially trained in gender responsive teaching methods.	Target not achieved Girls' rating of gender sensitive teaching not achieved
3.4 Percentage of teachers evaluating school structures to promote girl-friendly schools	Assessing schools as always girl-friendly: 50%	39% teachers rated schools as girl friendly and 56% sometimes – similar to control group	Target not reached.
3.5 Percentage of girls reporting extra-curricular clubs as one reason for increasing attendance and school performance (Female Students Forum, Girls Club, Reading Club)	50% schools have girls' clubs	53% (8) schools have **girls' clubs**, 47% (7) partially. Girls' club provide guidance and counselling in 4 schools. 83% seniors and 71% juniors report girls' club increase attendance and performance (13% a lot, 70% a bit) 78% senior girls and 69% junior girls report the **reading club** to increase	Target achieved. Compare to control schools 47% (7) no girls club. Extra-curricular clubs one reason for change, not the main reason

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
		attendance and performance (13% a lot, 70% a bit).	
3.6 Percentage of girls reporting better learning experience as a result of teacher role models	20% of schools report at least one	14 schools partially invited local female role models once. 84% seniors and 85% juniors report teacher's role models as reason for better learning – most said it helped a bit, 12% said it helped a lot.	Target achieved.
3.7 Percentage of schools reporting better able to improve girls' learning as a result of simulation game	40% of schools report implementation	Implemented in 48 schools (40%). 2 of the 15 project schools indicated they received training, 7 partial training, 6 no training. Improved management in 1 school, 8 partially and 5 not. Some effect on learning in 11 schools.	Target reached. Training will continue.
3.8 Percentage of girls reporting provision of basic stationery to vulnerable girls as a reason for increasing participation of vulnerable girls	New activity	Not directly assessed at midline. 1 school (7%) provide material support for needy students, 10 schools partially. Qualitative data shows it is an important barrier to education.	
3.9 Percentage of girls reporting improved school structures for girls in form of exemplary support for girls by head teachers, GEAC, Girls Forum Coordinators and gender officers.	New activity	10 schools (67%) provide counselling services to girls. 96% senior and 88% junior girls report GEAC advice and counselling to promote attendance and performance. One of the most important interventions.	Third most important intervention that assist girls

The GAP activities are implemented in all but 4 schools. The implementation of the GAP was evaluated according to 9 criteria. Of these criteria 3 schools implemented at least 5 of 9 criteria. Of all activities 42.5% were fully achieved, 52% partially achieved and 5.5% not achieved. GAP plans are thus in the process of being implemented in most target schools.

In group discussions the school management teams listed examples of GAP targets that were met:

- Students are aware of their rights and obligations and gender equality
- Slight change in providing equal education to male and female students, equal use of materials, equal participation without gender bias in 1:5 study groupings.
- Female students' participation in extra curriculum activities increased, like in educational dramas and plays, meetings, HIV/Aids day and parades without a feeling of rejection.
- Female students' grades have improved, they became competitive with their male counterparts
- Female students maintain their personal hygiene
- The level of dropouts, late comings, absentees and detainees has slightly decreased.
- Female students are aware of school rules and regulations.

Targets of the GAP plan that were not achieved:

- The effort to improve the attitude of parents of female students. Not all parents support girls' education and reduce household chores.

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance	

- The effort to have female students in schools on market days and not to participate in petty trade.
- Tackling disciplinary breaches of female students.
- Female students' lack of motivation to do well in education
- Male students to support female equality
- The outlook of the community has not completely changed.

It seems that teachers' attitude towards girls' education is very positive. They report attitudes that support equality in gender relationships:

- Education equally important for boys and girls (90%)
- Boys and girls should share household chores (87%)
- Men and women should have equal status (85%)

92% teachers report equal encouragement for boys and girls to participate in class and 87% teachers give boys and girls leadership positions. Group discussions with female teachers confirm their positive attitude towards the project and girls' education. Most of the female teachers benefitted themselves from the change in community attitude and contributed to the change observed in the girls' attitude towards school.

Though, many of the activities in the GAP and those asked in the school survey have been implemented partially, like teachers' training (in 14 schools), rewards to achieving girls, having female role models, teaching reproductive health, gender balanced teaching content, equal participation of girls and boys. Despite positive attitudes and activities the target was not achieved.

Girls' evaluation of gender sensitive teaching was lower than the target set, probably because of their own awareness of what they expect of teachers after being exposed to the programme. Though, the girls in the project group's evaluation was more positive than that of girls in the control group (X=4.23 (SD 2.27) vs. control group X=3.35 (SD 2.26), p<0001).

Extra-curricular clubs played some role in girls' attendance and performance, but not a major role as only 13% regarded the clubs as helping a lot. There is evidence from the qualitative data that the **girls' club** was active in schools. The girls' club helps girls to find solutions to their problems and encourage one another to progress in school. The emphasis is that marriage can wait until girls have completed their studies. The girls club raises funds to assist needy female students with stationery such as pens, exercise books and sanitary pads.

- "Girls club is organising discussion forums, giving advice and seeks solutions. The club now encourages us to tell our problems to student counsellors who are selected from the club members. We get advice twice a week that helped us to form a bond among us. For example, the representative of the club called me and an eighth grade boy who asked me to marry him and settled the problem. Now, I and the boy are learning."
- "The gender club teaches students to fight sexual abuse. It also advises students not to quit school due to sexual abuse."
- They advise us to do well and not to quit school. For example, I missed a lot of classes last year in 7th grade with the intention of leaving school altogether. But, a girl who is a member of the club made me change my mind."
- People in the club tell us the hardships they faced and encourage us to talk about our problems with boys. They also told us to inform them if we have burdensome household chores. They then discuss it with our parents to let us have time for our studies.
- It invited role model females to share their experience with us (Girls group discussion).

Female **role models** from the community visited schools once. In the videos showed at school there were also role models included. The girls mentioned the female role models as an important influence in their attendance and performance, for 17% a lot, 67% a bit.

Girls received **counselling from female teachers** from GEAC. Teachers were trained to support girls and build their self-esteem. They teach them about reproductive health and how to take care of themselves. They inform girls about issues like HIV/Aids, early marriage, sanitation, study methods and harmful traditional practices like female genital mutilation (Teachers group discussion). The girls mentioned what kind of help they received:

- They advise us about reproductive health and how to improve our performance in education.
- They tell us to maintain good hygiene not to offend male students when we sit together in class.
- They learn how to manage relationship with boys. "Male students used to pester us. Now, there is a change in attitude and we discuss with female teachers if there is any and arrive at a solution."

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance

- They also advise us not to be ashamed of ourselves due to menstruation and teaches us how to use sanitary pads. We get the service of the rest rooms when we feel sick and they help us to get back to our studies after getting enough rest.
- They encourage us to feel free to ask our teachers and obtain answers to our questions and advise us not to stop learning so that we could get higher status in our lives.
- It helped me to be self-confident. It helped me to believe that I can be successful if I learn (Girls' group discussion)

Additionally, GEAC plays a vital role in preventing and finding solutions to issues such as child marriage and cases of violence. LCDE have reports from GEACs where they were involved in reporting abduction cases to law enforcement, solving sexual harassment and violence cases between boys and girls in schools, bringing back dropouts and discussions with mothers who want to agree to their daughters getting married or give excessive household chores.

Advice and counselling of the GEAC was regarded as one the three most important interventions that influenced girls' attendance and performance. Counselling was considered more important by the senior girls, than the junior girls. 27% senior girls indicated it helped a lot, 69% a bit to attend school and to achieve well. 12% junior girls said it helped a lot and 76% a bit.

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
Output 4: More girl-friendly schools as a result of support during transition from childhood to adolescence			
4.1 Percentage of girls reporting access to sanitary towels as reason for increasing attendance at school	No access in baseline. Increase of 10% access to sanitary towels, decrease absenteeism to 30%	20% schools have sanitary materials for emergencies (73% partially) and 7% have always available (87% partially). Qualitative data confirm impact on attendance. 93% seniors (54% a bit, 39% a lot) and 59% juniors reported sanitary towels as one of most important reasons for increased attendance.	Target achieved. Compare with none of control schools that have sanitary pads. Sanitary towels played important role to improve attendance
4.2 Percentage of girls reporting access to female toilets as reason for increasing attendance at school	Separate toilets at 25% of schools	47% (7) schools have separate toilets, 53% partially. 95% seniors and 93% juniors report toilets as reason for improved attendance (66% a bit, 29% a lot).	Target achieved, compare well with control schools: 47% no separate toilets, 40% partially.
4.3 Percentage of girls reporting an increased school attendance due to the use of materials provided to girls	10% girls	39% seniors reported sanitary towels as important reasons for increased attendance.	Target achieved
4.4 Percentage of girls reporting female teachers being able to advise them as reason for increasing attendance at school	10% girls	96% senior and 88% junior girls report teachers' advice and counselling as reason for increased attendance and performance. One of the most important interventions. Average 14230 girls received counselling per month	Target achieved

Targets set for output 4 were all achieved. More schools had sanitary pads available for girls during menstruation than in the control group. The sanitary towels were provided to the schools and schools had to distribute them to girls when in need.

- "Female students used to miss classes in the past when there was no supply of sanitary pads. They would miss an average of 3 to 5 days during menstrual periods. This resulted in them not being able to do well in school. The situation changed. Sanitation materials have big roles in keeping girls in school and focus on learning. It also helped girls to receive the

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance

sanitation ware they had to earn money for before." (Teachers group discussion).

- "Female students were ashamed of themselves to come to schools when they have menstrual periods because the community and male students considered this phenomenon as a taboo. Now, this feeling of fear and dejection is tackled and female students learned that this is a natural incident and they receive **sanitation materials** such as pants, towels and soaps. The sanitary pads helped girls to keep themselves clean and healthy. It resulted in less dropouts. They do not attend poorly, they now attend school properly. (Teachers group discussion).
- "Because of the pad room and assistance there, it stopped to happen that girls dropped out after leaving school during their menstrual period and never returning. Girls learned they can stay in school even if they menstruate. Previously they thought menstruation was a shame. Boys and girls now talk about menstruation, they are not shy anymore. The girls committee made a difference." (School management group discussion)

The sanitary pads gave girls freedom to attend school:

- "The provision of pads freed us from a feeling of rejection and being teased by male students. They tell us to carry it with our school materials and use it whenever the need arise. The school prepared a changing room for this purpose." (Girls group discussion).
- "We used to engage in **petty trades** to buy some necessities like soap, pants and pads. Now, I get all these freely and able us to learn without any shortcomings". (Girls group discussion).
- "We used to remain at home during menstruation because we were afraid of becoming a laughing stock to people if we are found with stains in our clothes. Now, praise to the lord, we get sanitation materials from LINK that last 6 months and representatives of female advisory committee showed us how to use these materials. I go to school every day and can attend to my studies." (Girls group discussion).

Girls in the project schools were satisfied with the school facilities when they menstruate: 62% girls in project group rated it as good enough (compared to 16% of control group while 41% control group reported not at all). In the baseline survey the control schools seemed to be better equipped for helping girls with menstruation, than the project schools. The situation has drastically been changed. The sanitary pads, sanitary room and separate toilets helped more than half of the students to attend school.

Access to sanitary towels and counselling provided by the female teacher of the GEAC was one of the most important interventions identified by senior girls to improve their school attendance and performance. 93% senior girls and 59% junior girls reported pads as helping them to attend school (54% a bit, 39% a lot). In 6 months' time 24 counselling sessions were held in each school. The average number of girls that attended these sessions per month was 14230 girls. This could have been girls attending several sessions or just one. The uptake of these counselling sessions was 58.97% of the targeted girls. Girls needed this sessions and they benefitted from them.

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
Output 5: More girl-friendly schools as a result of gender-sensitive pedagogy, functioning literacy clubs and access to tutorial classes.			
5.1 Girls reporting better learning as a result of more gender friendly pedagogy	Grade 6 girls' attitude towards school: 9.1, Grade 2 girls' attitude towards school: 8.2 Grade 6: Attitude towards teachers: 7.5 Grade 6: Gender sensitive teaching: 5.7	Senior girls' attitude towards school: project group 7.5 vs control group 6.4 (p<0.001) Junior girls: 6.7 vs 6.4 (p<0.05) Senior girls' attitude towards teachers: project group 4.9 vs control group 4.9. No difference Junior girls: 5.2 vs 4.8 (p<0.01) Senior girls' evaluation of gender sensitive teaching: project 4.2 vs control 3.3 (p<0.001) Junior girls 4.2 vs 2.6 (p<0.001). Senior girls gender attitudes	Target not reached. Girls not more positive about school, teachers or gender sensitive teaching than in baseline, but more positive than control group.

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
		in education: 3.8 vs 4.1 (p<0.05).	
5.2 Percentage of schools implementing improved gender sensitive pedagogy	30% implementing	20% (3) schools report gender responsive teaching methods, and 12 schools partially. Gender audit rated school curriculum as gender sensitive: project schools 4.9 vs control schools 0.43 (p<0.001) Teaching and learning strategies rated as gender sensitive: project schools 5.5 vs control 2.8 (p<0.001)	Target almost achieved. Significant difference between project and control schools.
5.3 Percentage of girls reporting better learning experience as a result of functional literacy/reading clubs	20% of those attending find it useful	The reading club contributed somewhat to girls' performance (seniors: **13%** a lot, 70% a bit; juniors: **13%** a lot, 65% a bit). No attendance data	No attendance data.
5.4 Percentage of 'at risk' girls attending tutorial classes	20% attendance	The average attendance for the 12 155 girls over the 7 months (Oct 2014 to May 2015 – Excluding Jan 2015) was 94% (varied between 92% and 98%). 6 schools report 75% attendance.	The data gives an average of all girls. The attendance is therefore high.
5.5 Percentage of 'at risk' girls reporting better learning experience as a result of attending extra tutorial classes	20%	93% (14) schools present tutor classes at least once a week. 97% senior girls report tutorial classes contribute to better learning (59% a bit, 38% a lot). 97% junior girls rate the same (62% a bit, 35% a lot).	Target reached. The most important intervention to promote attendance (30%) and performance (63%) by seniors and all other participants.

Girls in the project group are not more positive towards school, their teachers and in their evaluation of gender sensitive education than in the baseline evaluation and the target was not reached. Though, their evaluation of gender sensitive teaching differs from those of the girls in the control group, despite the fact their ratings were significantly lower than the control group's rating in the baseline. The control group thus evaluated girls' education much more negative at midline.

In terms of their evaluation of teachers there were no difference between that of girls in the project and control schools. Girls in the project schools reported that their teachers did not really care about them (46% said they did not care, 38% were uncertain). They also reported that teachers did not attend to their emotional needs. In group discussions girls were more positive. They said they experience that teachers encourage them to do well in school. They encourage equal participation of male and female students in class and remind girls that they have a right to ask and answer questions in class. They experience that teachers are less negative towards girls.

- "Teachers used to insult and degrade us in the past. Now, they teach us our rights and duties and encourage us to ask questions and discuss in 1:5 groups. They encourage equal participation from male and female students."
- "The teachers give us special tutorial classes when we have difficulty in understanding lessons. They are punctual in coming to classes."

The senior girls' educational aspirations are very high (project group 8.96 (SD 1.54) vs control group 7.1 (SD 2.73), p<0,001). They see education as important (90% vs 62% control group) and see it as essential to improve their lives (86% vs 59% control). The project has made them aware of what is possible and raised their expectations. It seems as

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
if they are disappointed in the education they receive in the school. Their experience of gender attitudes in education is low and even lower than the evaluation of girls in the control group (3.8 vs 4.1, p<0.05). The girls still experience that boys get more attention in schools (61%), that teachers think girls have limited career options (69%) and that boys do not want girls to perform better than them (57%). Junior girls also think that teachers give more attention to boys in class (55%) and that boys learn most in school (66%). Teachers agreed that the curriculum is more relevant for boys (31%). Some girls expressed that some teachers still need more training to provide effective education: "Some teachers lack knowledge of the subject matter they teach. It would be good if they are put to capacity building trainings." These results suggest that not all teachers in schools changed their way of teaching and approach towards girls. Although some teachers were trained in girls' sensitive teaching methods, not all teachers implement these methods. It was a finding of the Zone gender specialist report that information presented at training sessions were not always transferred to other teachers in school. All teachers thus did not change their teaching methods. The same was found for girls' evaluation of gender attitudes in the community. They evaluated the attitude of community members still negative towards the value of females (target X=3.5 (SD1.88) vs control X=3.6 (SD 1.9), no difference). They still experience community members to regard education for boys as more important than to girls (78%) and that girls are not as clever as boys (70%). Gender roles has not changed as they perceived community to still believe that males should not do household chores (65%), women should obey their partners (89%) and that males may even punish their female partners (71%). It seems as if girls were made aware of gender inequality but do not see change in community attitudes towards girls' education. Much more awareness raising is needed to change community attitudes. The importance of girls' perception of *gender sensitive teaching methods*, *gender attitudes in education* and *community gender roles* stems from the multiple regression analysis where it was found that these variables predict improvement in EGRA and EGMA results. Although girls rated gender sensitive teaching low, the participants in the gender audit rated the school curriculum of target schools as average in gender sensitivity and more gender sensitive than control schools (target schools 4.9 vs control schools 0.43 on a scale 0-10 (p<0.001). Teaching and learning strategies were rated as more gender sensitive than the control group: target schools 5.5 vs control 2.8 (p<0.001). The opposite was true in the baseline evaluation. These ratings show that there is still much work to do to change schools to be gender sensitive. The **tutorial classes** implemented in almost all the target schools made the most impact on attendance and learning of the girls. Senior girls indicated that tutorial classes helped them a lot (38%) and for 59% it helped a bit. Junior girls gave similar feedback. All participants rated tutorial classes as most important intervention. Qualitative data showed that tutorial classes helped girls to keep up with the school work and received special attention where they did not understand the work. In the tutorial classes they were encouraged to asked questions and to contribute. This helped the girls to feel confident about their ability to do the work and to participate in their classes: • Girls' grades improved because of **tutorial classes**. Revising our studies that we learned in the regular classes at the tutorial classes assisted us in improving our performance. We used to beg male students to help us with our studies. Now, we learn freely in tutorial classes and our teachers assist us in our studies. • We faced difficulties to **read** in the past. Now, teachers are assigned to help us with reading. We attend tutorial classes and read texts in classes. • We get special lesson three times a week particularly in science and English subjects. Teachers prepare special questions and let us to discuss them among ourselves.			

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
Output 6: Four woreda education offices more responsive to the needs of girls and empowered to support girls' education			
6.1 Woreda educational office staff reporting a change in gender perspectives	Woreda staff gender attitude in education:Scale: 6.9 (scale 0-10) Increase to 30% of woreda staff	Woreda staff gender attitude in education: project schools 7.2 vs 5.3 in control woreda (p<0.001).	Target achieved. Target woreda staff more gender sensitive than

Output and Output indicators	Midline Target (planned)	Midline Target (achieved)	Variance
	in each woreda	Personal gender attitudes: project woreda staff more positive than control woreda (7.09 vs control 5.7, p<0.01).	control woreda staff.
6.2 Percentage of woreda education office staff who report at least two different gender responsive behaviours when dealing with schools in relation to project activities	20% of woreda officials report at least two different gender responsive behaviours	During group discussion with 47 officials 20 (47%) reported behaviours that changed performance and 13 (28%) behaviours that changed attendance. at least 28% woreda officials reported more than 2 behaviour changes.	Target achieved. This is their spontaneous responses, reported in an unbiased way.
6.3 Percentage of schools reporting an increase in woreda gender responsiveness actions	20% report always	8 schools receive support partially from woreda officials for girls' education, 7 schools no support Teachers report woreda officials to be gender responsive: 10% always, 55% sometimes	Target not fully reached, but better than control group
6.4 Increased understanding of key obstacles to girls' education from woreda staff		Understand the obstacles. Teachers see 17% mostly responsive to girls' needs and 71% sometimes. Officials experience lack of community support for girls' education (48%), finances and equipment (60%)	Target achieved

Woreda staff in project schools' gender attitude in education was significantly more positive than that of the woreda staff in the control woreda: project 7.21 (SD 1.2) vs 5.39 (SD 2.08) in control woreda (p<0.001). Their personal gender attitudes are also more positive than those of the control group woreda (project woredas 7.09 (SD 1.7) vs control woreda 5.7 (SD 2.29), p<0.01).

Woreda officials can name several gender responsive behaviours such as: "*Girls are competing with boys and they score higher," "Understanding their menstrual cycle", "Give girls less chores so they can be at school in time*."

The discussions with woreda officials (as part of the open technology strategy) showed that woreda officials are actively involved in implementing this project. They understand the barriers in girls' education and activity promote climate change to promote girls' opportunities to education.

Even though, schools did not experience as much support from woreda officials as they expected. 8 schools reported partial gender responsive actions from woreda officials, while 7 schools do not experience gender responsive actions. Only 10% teachers rate woreda officials as responsive to the needs of girls. (This can be compared to the control group where they sometimes (36%) or never (53%) experience woreda officials to be gender responsive.)

This raises serious questions, as the woreda officials are responsible to follow up and monitor the implementation of gender sensitive teaching. Woreda officials should be made aware that the teachers expect more of them to support implementation.

2.4.2 Which interventions made a difference from the perspective of various stakeholders?

Participant groups were asked to rate which of the following programme components contributed to girls' improved attendance and achievement in school. The first components highlighted are those that were identified as the most important components by most participants (Table 17).

Table 17 Interventions that influenced girls' attendance and performance

Promote attendance				Promote achievement						
Senior	Junior	Teachers		Senior	Teachers					
Extra tutorial classes	97%		97%		99%			98%		95%	
Access to sanitary towels	93%		59%		95%					94%	
Advice and counselling	96%		88%		98%			95%		97%	
Rewards for good achievement	82%		83%		87%			80%		88%	
Teacher as role model	84%		85%		93%			87%		91%	
Parents' encouragement	78.3%		90%		82%			80%		78%	
Household chores decreased	71%		81%		59%			73%		63%	
Parents' financial support	67%		76%		42%			67%		37%	
Teachers more attention to girls in class	89%		90%		94%			92%		95%	
Attended the girls club	83%		71%		90%			83%		88%	
Attended the reading club	78%		69%		83%			75%		88%	
Access to female toilets at school.	95%		93%		100%					97%	
Confidence in own ability to do school work	90%		84%		84%			88%		89%	
Positive climate for girls' education	88%		87%		89%			90%		84%	
Attention to improving girls' education.	80%		78%		89%			81%		85%	
Parents attend school meetings	78%		78%		63%			78%		63%	
Community meetings to improve schools	78%		80%		65%			78%		59%	
Teachers encourage girls to participate in class					93%			63%		95%	

Participants were asked which ONE intervention made the most important contribution to attendance and performance. Their responses are summarized in table 18.

Table 18 Most important interventions

Group	Attendance	Achievement
Senior girls	Attendance of tutorial classes (30%)	Attending tutorial classes (63%)
	Access to sanitary towels (25%)	Female teachers give advice (7%)
	Female teachers give advice (7%).	
Junior girls	Attend tutorial classes (33%)	Tutorial classes (38%)
	Teacher role model (9%)	Rewards for good achievement (7%),
	Female teacher gives advice (8%)	Community meetings (7%).
	Rewards for good achievement (7%)	
Parents	Tutor classes (32%)	
	Sanitary pads (29%)	
	Community meetings to change attitudes (7%)	
	Rewards for good achievement (7%) (Junior girls' parents)	
Teachers	Tutorial classes (30%)	Tutorial classes (45%),

	Sanitary pads (21%)	Sanitary pads (14%),
	Teacher's encouragement (11%)	Teachers' encouragement of class participation (9%).
	All the attention to girls' education (7%)	

The same interventions were mentioned by all stakeholders in group discussions as making the most important contribution to girls' education. In the discussions the girls described the interventions as follows:

- LINK provided us with sanitary pads, soap and underwear so we do not miss classes because of menstruation.
- They provided tutorial classes that helped us to compete with male students.
- Dramatic awareness creation on female education was given to our parents. Families had a backward outlook towards female education and said: "what good will education do to females?" Now, families are willing to send girls to school and reduce girls' household chores.
- We are receiving advice and guidance by female teachers twice a week. We are becoming more hopeful about the benefits education could bring us.
- The project built special toilets for us and we have rest rooms during a sudden menstrual cycle and we can wash and change a pad.
- Awards were given to model female students and their mothers.

Different stakeholders explained how interventions contributed to change:

"The attitude change in the community came first. Girls received the pads and were told what to do, they could raise their issues and solve their problems through counselling. That contributed to more self-confidence. Girls learnt their own capacity and that they are equal to boys and develop the confidence that they can do anything, this is the most important. Therefore their performance increased. LCDE opened up opportunities for girls". (Teachers' group discussion).

"Changes took place due to the support and awareness creating activities, the provision of trainings to teachers, the provision of teaching materials and trainings to parents helped in tackling backward attitudes. This in turn enabled female students to attend schools and stopped the drop outs. Awards are given to ranking female students, their mothers and teachers encouraged good performance." (Teachers group discussion).

"Awareness creating forums and the presentation of students' performance at SPAM meetings created an awareness of girls' education. Advisory services were given to mothers at schools and sanitary pads and rest rooms helped female students to attend school. Female students are more confident about themselves now so that they provide advice to their families and neighbours. The awards for female students to encourage them to study helped them to compete with male students." (Parents' group discussion).

The most important components of the intervention that assisted girls were **tutorial classes**, **sanitary towels** and the **counselling provided by the teachers** in the GAEC. These intervention as well as role models and rewards for achievement and community meetings made a difference in attitude towards girls' education.

2.4.3 Unintended changes

Control group: Compared to the baseline, control group participants scored extremely low in terms of attitudes and satisfaction with parents and schools. It may be that girls in the control schools are very negative, and that conditions in schools deteriorated since baseline. That was not the observation of the EMET team that visited all of the control schools. The evaluating and measuring activities in control schools and the involvement of the woreda officials of the control schools may have generated an awareness of the need to address gender issues and specifically girls' education in those communities as well. It seems as if the participants in the control schools are aware that they do not benefit from the project. It seems as if they give a very negative picture of their conditions, so that they can be included in the project.

Project group: The participants in the project schools rated relationships, facilities, school activities and teaching methods more negative than in the baseline study. It seems impossible that the interventions that took place only had negative influences on participants. On the other hand the qualitative data seems to be overwhelming positive and that confirm that change is taking place.

It is possible that the change is not wide-spread and in-depth so that it is reflected in the majority of participants' opinions. It is that the expectations of the participants have been raised. Awareness of the importance and value of education and how conditions should be, could have changed the *person's opinions, perceptions and expectations* so that the rating of services, conditions and relationships are more negatively. Thus, the awareness as a result of the project, could have resulted in a stricter evaluation of the conditions.

It should be kept in mind that the project assisted girls in increasing their self-confidence. They are therefore more ready to form and voice their opinions. Because they feel more adapt at raising fair criticism they may have expressed more critical opinions about their parents, teachers, peers and community in questionnaires and interviews than at baseline. This may have influenced girls' responses in unintended ways. This makes it difficult to use their before and after responses to adjudicate behavioural trends in the groups they are reporting on.

Boys: While boys were mostly supportive of opportunities for girls and volunteered assistance, they questioned the fairness of being excluded from the intervention. They expressed the desire to benefit from the project as well:

- I support the idea of providing soap, sanitary pads and underwear to female students. However, I would like to be supplied with soaps to wash my socks as I am from a poor family as well.
- We require toilet facilities and the like services for us as well?
- Though, the provision of tutorial classes three times a week to female students is encouraging, it would be good if I could attend tutorial class at least once in a week.
- I like and respect LINK for developing our country. However, what is its reason for not to include boys in its program? We are Ethiopians as well. (Boys group discussion).

Boys did not like girls to be in a better position to compete with them academically:

- It made females equal with me. I was superior to them!
- I am forced to do household chores.

Parents: Some parents are negative and reluctant to come to school. They expect to get allowances when they are summoned to schools. They see the schools' efforts to promote education as an excuse girls use not to do their domestic chores.

- "Lots of people, though happy with the provisions, they are getting tired of getting calls to attend endless meetings."

Girls misuse opportunities: Attendance of tutorial classes in the afternoon after school, gives girls little time to do their school work at home. Other said some of the girls used tutorial and counselling as a 'not to be missed occasion' as an excuse to go out and spend time in other undesirable places.

Some **teachers** are unhappy for not getting paid equal allowance than other teachers.

2.4.4 Key drivers behind delivery of your outputs

A key driver was that a real problem experienced by girls and women in the community was addressed. Female teachers reacted very positively, as the intervention gave them a voice. The female teachers supported the girls actively through the GEAC. When girls received assistance they became active in driving the change process.

Woreda staff was motivated to participate in the project and to implement project targets. The project provided materials, facilities and training which was needed in the schools.

2.4.5 Key barriers to the delivery of your outputs

It is a slow process to change community attitudes and behaviour. All stakeholders showed attitude change, but this need to develop into change in action. The change process thus needs to be strengthened.

There seem to be implementation issues in schools. Several trainings took place the past two years. According to the Zone gender manager's implementation report the content of the training is not implemented throughout the schools. A strategy is needed to facilitate implementation of gender responsive teaching. It is stated in the report:

- "LCD is different in that it supports by materialising its support and making it effective, unlike other organisations. Where there are gaps, it is a problem of implementation rather than a gap of LCDE" (Zone gender manager's Implementation report, 2015, p.24).

Woreda officials are the trainers and supervisors of the project in schools. Teachers do not particularly experience woreda officials as positively demonstrating gender sensitivity and responsiveness to girls' needs. Only 10% rate woreda officials as responsive to the needs of girls, 55% somewhat so. If woreda officials do not demonstrate what they teach, it can decrease the effectiveness of the training provided,

2.4.3 Effects of interventions on barriers to girls' educational outcomes

The effect of the project on the main barriers to girls' education are outlined in Table 19. The interventions that made a *difference* are discussed in the narrative.

Table 19 Summary of barriers to education outcomes and types of project interventions

	Evidence of barrier (Tick as appropriate)		Effects on outcomes (Tick as appropriate)		List the type of project intervention that addresses this barrier	Change as a result of project
Potential barrier	**Evidenced at baseline?**	**Evidenced at midline?**	**Attendance?**	**Learning?**		
ECONOMIC FACTORS						
Poverty	Subsistence farming	Subsistence farming and draught	√	√	No direct intervention	No change. Potential long term change
Cost of school (fees, books, uniforms, etc.)	Difficult for 82% parents to afford girls' education	Difficult for 86% parents to afford girls' education. Similar for control group; 8% girls said parents pay all school equipment; 74% sometimes	√		Planned intervention of provision of school equipment and stationery for needy girls. Some girls' clubs in schools raise money for stationery	No change
Domestic chores and livelihood activities	66% girls do domestic chores more than 2 hours per day. 65% girls report domestic chores interfere with school work	83% girls indicated they do household chores that interferes with their school work. Junior girls: 61% always and 38% sometimes do household chores. It keep 30% always from doing school work and 58% sometimes	√	√	Parental awareness through SPAM and AV material presented through GEAC.	Despite qualitative feedback that domestic work was decreased, it is still a problem. 5% girls report parents decreased household chores, 63% sometimes and 31% never. Parents confirmed that they only somewhat decreased the household chores.
SCHOOL BASED FACTORS						
Lack of gender sensitive teaching	Teachers rate their gender sensitive teaching high (7.1) but girls rate it average (5.1)	Teachers rate their gender sensitive teaching high (6.9) but girls rate it average (4.2) 3 schools report gender responsive teaching methods, and 12 partially		√	Training of teachers in gender sensitive teaching methods	There is change in some schools. Girls do not evaluate teachers and their teaching methods more positive. It is partially implemented
Lack of adequate facilities such as toilets	2 schools had separate toilets for boys and girls; 91% girls not satisfied with toilet facilities	7 schools have separate toilets, 8 partially 60% girls reported sanitary room good enough.	√		Toilets built in each school	95% senior and 93% junior girls reported toilets as reason for improved attendance.
Under resourcing (class size)	Observed large classes	Observed large classes		√	No specific intervention. Tutor classes smaller and helped girls	Classes still too big. Tutor classes helped

	Evidence of barrier (Tick as appropriate)		Effects on outcomes (Tick as appropriate)		List the type of project intervention that addresses this barrier	Change as a result of project
Potential barrier	**Evidenced at baseline?**	**Evidenced at midline?**	**Attendance?**	**Learning?**		
Lack of female teachers	Few female teachers as role models	6 schools try to recruit female teachers, 3 schools try to promote women into management positions	√	√	Awareness creation. Female role models visited school and shown in DVD for girls and mothers	Some effort to recruit female teachers and to promote female teachers.
Lack of adequate sanitation facilities	No facilities available in schools	Sanitary pads in all schools, sanitary room for girls 73% satisfied with sanitary room	√	√	Provision of sanitary towels, sanitary room and guidance how to manage menstruation through GEAC	Girls can attend school despite menstruation
Teachers treat boys and girls differently	31% girls think teachers see education for boys as more important; 38% see boys get more attention in class	44% girls think teachers see education for boys as more important; 40% disagree; 58% see boys get more attention in class, 33% disagree	√	√	Teachers' training in gender sensitive education	Girls do not experience teachers as more gender sensitive, though girls are aware of their rights.
Language of instruction not mother tongue	Instruction in English from Grade 5 onwards	Instruction in English from Grade 5 onwards		√	English teaching for some teachers and provision of books to read	Recently implemented. No results yet.
ATTITUDES AND SUPPORT [1]						
Negative attitudes towards girls' education	Girls perceive climate for girls' education negative (3.7 on scale 0-10). Parents: 5.9; teachers 7.5. Attitude that education is wasted on girls.	Girls perceive climate for girls' education negative (3.8 on scale 0-10). Parents: 4.5; teachers 6.9 Community attitude still negative: 49% parents indicate that it is unusual in the community to send girls to school up to grade 8.	√	√	Raising awareness of girls, parents and community through SPAM and AV materials through GEAC	Some awareness in all stakeholder groups, not significant differences as assessed through surveys.
Lack of family support and parental involvement girls' education	Parents rate their support average and girls rate it low. Girls involved in	21% girls always receive support, 67% sometimes; 21% girls' parents encourage them, 54%	√	√	Raise awareness of parents through SPAM and AV materials	Some awareness of importance of girls' education. Some change in parents' behaviour

[1] For barriers related to attitudes, describe in the narrative if the attitude is the girls' attitude or the attitudes of others.

	Evidence of barrier (Tick as appropriate)		Effects on outcomes (Tick as appropriate)		List the type of project intervention that addresses this barrier	Change as a result of project
Potential barrier	**Evidenced at baseline?**	**Evidenced at midline?**	**Attendance?**	**Learning?**		
	domestic chores and not encouraged to attend school.	sometimes 49% parents reported that they do not support girls enough. Only 13% encourage girl very much to go to school and 82% somewhat. 59% parents see boys' education more important than girls' education and 35% disagreed.				
Inequality in gender perceptions in community	Traditional gender norms in community: girls 3.4 on scale 0-10; parents 5.3; teachers 6.9 Women have low status in community	Traditional gender norms did not change much: 56% parents see women's role as in the household, 84% said women should obey her partner, 82% said men have the final say in family matters and 64% agreed that men could punish their partners.	√	√	Community and parental awareness through SPAM	Some awareness and change described in qualitative data but not observable change in attitude towards women's roles in the community
Relationship boys and girls	74% girls do not see boys as helpful. Boys make things difficult for 37% girls 72% think boys do not want girls to achieve better than them.	51% girls do not see boys as helpful. Boys make things difficult for 50% girls 74% think boys do not want girls to achieve better than them. Boys report how they support and help girls with school work and domestic chores			No direct intervention for boys. Girls gain self-confidence through GEAC intervention	Some change observed in boys helping girls at home and with school work. Girls have more confidence to relate to boys
VIOLENCE AND SAFETY[2]						
Sexual harassment and violence	47% senior girls scared to be beaten by boys	64% senior girls scared that their boyfriends will beat them if they do not			Counselling and complaints box at school. Implementation of GAP	More awareness could result in higher ratings "Sexual harassment has decreased as the confidence of female students has improved."

[2] For barriers related to violence, describe in the narrative if the violence is at school, at home or on the way to school

	Evidence of barrier (Tick as appropriate)		Effects on outcomes (Tick as appropriate)		List the type of project intervention that addresses this barrier	Change as a result of project
Potential barrier	**Evidenced at baseline?**	**Evidenced at midline?**	**Attendance?**	**Learning?**		
		listen, 30% disagree. Junior girls: 19% always scared of boys, 60% sometimes 1 school reports efforts to prevent sexual harassment and gender violence, 12 schools partially. No schools report complaint boxes and communication channels for girls to protect themselves.				(boys' group).
Unsafe journey to school / long distances	Safety to get to school problem for 41% senior girls, 19% junior girls	Senior girls: 35% easy to get to school, 38% sometimes, 27% difficult Senior girls: 29% safe, 46% sometimes safe, 25% not safe (control group 69% sometimes safe). Junior girls: 16% safe, 49% sometimes safe, 31% not safe.	√		Girls' counselling from GEAC	Safety issues still a barrier although girls have more confidence.
PERSONAL FACTORS						
Low self-esteem of girls	Girls do not have a voice; do not believe they can do school work	Girls' aspirations are high (9.0 on scale 0-10) but 70% girls still think they learn less than boys in schools. Girls gained confidence and some achieve well	√	√	Social and Emotional Learning and counselling through GEAC Awareness of importance of girls' education	Girls' awareness and aspirations high, need more confidence to believe in themselves
Early or forced marriage	40% girls are aware of early marriage	53% girls knew girls who married early. 13% parents would approve of early marriage and 67% would not	√		Raising awareness in community. Counselling in schools through GAEC: girls are made aware of problems related to early marriage and encouraged to stay in school	Some qualitative evidence that girls remains in school
Issues around general and	No education about	Girls talk openly about	√		Counselling in schools by GAEC:	Girls more confident about being a woman

	Evidence of barrier (Tick as appropriate)		Effects on outcomes (Tick as appropriate)		List the type of project intervention that addresses this barrier	Change as a result of project
Potential barrier	**Evidenced at baseline?**	**Evidenced at midline?**	**Attendance?**	**Learning?**		
sexual health	menstruation	menstruation and are confident			menstruation, health	
OTHER						
Low levels of education in family	35% fathers no education 50% mothers no education	31% fathers no education 50% mothers no education. Mothers encourage their girls not to be uneducated.	√		No intervention	No change, except that some mothers returned to school with their children to complete her education.

For the barriers identified, many of the barriers still exist at midline. Attitude change is observed among girls, teachers and parents especially in qualitative data. There is some change but not clearly visible in changed action. In this section, barriers that were *changed* as a result of the intervention will be highlighted. It is not always possible to link specific interventions with specific outcomes. It is a holistic and complex intervention so that it is difficult to attribute specific change to various activities.

Lack of adequate facilities such as toilets and adequate sanitation facilities

Provision of toilet and sanitary facilities helped girls to raise their self-esteem, attend schools and focus on their school work. The intervention resulted in change for all girls. 60% rated school facilities when they menstruate as adequate.

- "Before when menstruating we were not here at school, we even missed tests. The boys would laugh at us. Now we are lucky, we get sanitary pads and soap. Our lives have changed. We are free." (Girls group discussion).
- "We were delighted to see the distribution of pants, towels and soaps. I am a poor farmer with a school going daughter. She has only one pant and she doesn't have another one when she wants to wash it. A rat ate this pant to make things worse and she was nagging me to buy a new pant. I thank God now that the project gave her handfuls of pants." (Parent group discussion)
- "I know a girl who use to get excellent class rank until grade 6th who dropped out of school and got married for a simple reason of being seen with blood stain on her shorts and being mocked. The provision of sanitary pads is a big solution by itself. LINK played a vital role through the provision of materials to students that boosted the morale of students." (Parent group discussion).

Lack of family support and parental involvement in girls' education

Lack of parental support makes it difficult for girls to attend school because they often lack money and are occupied with domestic chores. Because of the intervention there was some change in parental attitude and involvement in education. Some parents decreased domestic chores or re-distribute chores and gave girls opportunity to go to school. Some encouraged children to do well in school. This is slow process and more intervention is needed to strengthen change.

Relationship between boys and girls

The intervention brought about change in boys' attitude towards girls. Boys were mostly supportive of the intervention to approve educational opportunities for girls. They saw the need to assist girls because of the inequality that existed. They assisted girls with schools work and helped with homework chores at home. They took additional work onto themselves to give the girls a chance to progress in their education.

- I help female students at school and my sisters at home with their studies. We do difficult school assignments together and encourage them to work with me.
- I share household chore so that my sister can attend tutorial classes. I cut fire wood and fetch water for her. We equally share every house hold chore.
- I convince our parents to send the girls to school and to attend tutorial classes three times a week.
- We stand guard for the rights and safety of not only my sister but also female students in our area. We accompany them to school and back.
- I consider any support given to any female as a support to my sister because if she reaches high status in the society, I will be remembered as her brother.

Low self-esteem of girls and aspirations

The girls realized their own value and the value of education. Through attending tutor classes and counselling at school, their self-esteem improved that enabled them to have high aspirations and put effort into their school work.

- "We lacked awareness about the value of education and missed tutorial classes and library attendance in the past. Our teachers tell us to attend both and our parents are being called to schools to receive advice. Hence, I am now more attentive to my studies and my family gives me time to study and allow me to use the kerosene lamp so that I could read after school hours at home."
- "I have a strong belief that we can attain much higher goals in life through education even though we are not provided with the basic needs such as cloth and shoes now. I don't want to be late to school thinking of the benefits education can offer me." (Girls' group discussion).
- "Our lives have changed. We are participating and competing with boys in class and elsewhere."

Some girls still do not use their opportunities fully:

- Females often do not have the awareness in the importance of education. For example, they do not care much about tutorials but, I keep reminding my sister how envious I am of her for having this wonderful opportunity. (Boys' group discussion).

Inequality in gender perceptions in communities

The attitude towards girls' education in the community changed somewhat from extremely oppressive to more openness and some opportunities for girls. The project tried to raise community awareness of the negative influence of traditional attitudes towards females. It helped to change an old belief that states "women and pots belong in the kitchen". To change community attitudes many stakeholders were involved – school directors, parents, teachers, videos. Everyone was trained to raise their capacity (Teachers group discussion). The intervention started a change process to open up educational opportunities for girls.

- Communities were backward and now they are upcoming. Community outlook is changing. Now families want their girls to go to school and get education. Boys help more at home. There is an awareness in communities of importance of education (Woreda officer).

- Previously people treated boys and girls differently. Schools were for males students, there were only a few girls. This project aimed to break the traditional attitudes towards girls and raise awareness of girls' value. It is a process to change the society. It is a big change that LINK brought in a short time, but it is great work. If you see before, I could not speak to you or with my girlfriend. In my house I could not speak with my family. When I try to speak, they would say do not speak to me. It is not so today. I was shy, not today. As teachers we benefitted a lot in confidence (Teachers' group discussion).
- Attitude change is visible. A female child never sat at the same table with males in the past. Now, she feels equal to others and do not feel ashamed about her sex (Boys group discussion).

There are some community members that became aware that educated people achieve a lot in life, while there are others who did not change and do not allow their children to go to school and enhance their education. The quotes below shows that change is a slow process. It is especially parents' personal experiences of the value of children's education that contributes to change in attitude towards education.

- "It is difficult to tell the proportion of people who showed change in their outlooks and those who did not. Some of them think that giving her hand into marriage is the only solution when their daughter fails to perform well in school."
- "If not for my participation in kebele and various meetings that helped a bit in my power of reasoning, I would have found myself in the same wrong position as these people."
- "I am a father of one son and daughter who got married at early ages due to lack of attention on my part. My other son, who educated himself very well, got himself a government job, married to an educated woman and leads a happy life, is my only consolation."

Summary: The interventions that directly worked with girls, such as provision of sanitary pads, tutor classes and counselling for girls had the greatest effect on the girls' attitude, attendance and performance. LCDE provided the resources and training to implement the interventions. Other interventions like changing awareness and attitudes surely started a change process but is not fully effective yet. The implementation of GAP should also receive more attention to make a difference in schools.

2.4.4 How has the project demonstrated value for money?

Although no formal cost-benefit analysis was done, the project seems to be value for money. It achieved a balance between effectiveness, efficiency and economy.

Regarding ***economy*** it was clear that the cost of inputs and the procedures of procuring were economical. LCDE has a small staff and provides training for Woreda officials to implement the interventions on a large scale in schools. Community ownership of the schools also enhanced the economy of the project as community assist in developing the schools. In this way a large number of beneficiaries and schools can be researched cost-effectively.

The ***effectiveness*** of the project is evident from the objectives being achieved. We observed *the start* of a change process that involves significant changes for girls, teachers, parents, the school system and the community. Provision of sanitary pads and tutor classes seemed to result in the most direct change for girls.

The project was ***efficient*** as the activities are aligned with the education system and use existing structures. This is the most efficient way to achieve results in this context. It ensures not just buy-in of the stakeholders and political will but ensures that the impact is for all schools in all the woredas included in the project.

2.4.5 In what ways has your project demonstrated innovation and with what effects?

This project introduces a **package of activities** in Wolaita Zone which have been demonstrated to bring girls to school and help them to stay there/achieve. E.g. sanitary pad provision has been shown to increase attendance and tutorial classes to improve performance. Gender Responsive Pedagogy has been shown by the Forum for African Women Educationalists to enhance girls' experience in the classroom.

The project applies LCD's approach of full **alignment with MOE policy / co-delivery with MOE officials** to build long-term capacity for improved outcomes specifically to the National Girls Education Strategy for the first time. LCDE has already been recognised at regional level for working at the grassroots, with a sustainable and innovative approach to improve quality of education and we have a good base from which to lobby for sustainable solutions.
The project is built on an **understanding of girls' needs** and suggestions girls made to change their situation. For example the supply of sanitary pads, decreasing of domestic workload, and tutorial classes were suggested by girls in focus group discussions.

The project uses innovative platforms for community stakeholders to engage in local processes through the **SPAM**. The SPAM methodology was developed by LCDI, and tested in other African countries, but in Ethiopia (and specifically the disadvantaged rural context) it seemed to be ground-breaking. It has been implemented in previous LCDE projects in Ethiopia, and formed the foundation to identify the needs of girls, enhance community engagement and promote change in community attitude. SPAM brings all stakeholders in education together and promotes ownership.

The collection of detailed annual **gender-disaggregated data** in every school against MOE indicators and of annual learner test results in core subjects provides a robust empirical basis for analysis of changes to girls' learning outcomes. A project database will store and collate changes in rankings against gender indicators and girls' performance in each school, cluster and woreda over the three year project period. The database has the facility to be expanded to include a wider sample of schools across the zone or region as up-scaling takes place and to include control schools and woredas for external evaluation and impact assessment.

The use of **continued assessment** and the capacity development of teachers and officials to implement learner core testing for grade 4 and 7 was not new to this specific project, but the impact of these tests have reached the Wolaita district. This provides objective measures of students' progress across the woreda. All 15 woredas in the Zone are currently implementing the core subject testing – much wider than the project. This is a LCDE influence and innovative for the specific context.

This project adapted LCD's '**School Performance Review'** (SPR) to explicitly assess gender sensitive practices in schools. It provides data on gender-specific indicators on school level to use in development of gender action plans.

The project adapted the **School Management Simulation Game**, trialled by LCD South Africa, into a Wolaita version for school management teams and woredas to utilise to inform planning. The adaptation includes a gender focus.

The use of innovative **local language AV materials** (no such videos exist in Wolaitgna currently) with parents and local communities to mobilise community awareness mobilisation around obstacles girls face and the importance of education for girls was very innovative and effective. The project initiated a new partnership with WKW (a private media company) who provided materials aimed at increased learning outcomes by enhanced understanding of key obstacles. It also involved collaboration with the Women's Affairs Bureau, a relatively new government department in Ethiopia, for the first time. The videos demonstrated barriers and community issues. It was shown to girls and mothers followed by a discussion. The discussions during these sessions included parents being able to visualise the issues and reflect on their own behaviour. Girls were also given a voice and were confident to verbalise their issues with their parents. The awareness raising should have long term effects as it aims at attitudinal change. The AV material can be translated into any of the 56 languages currently used in SNNPRS.

- They did community mobilisation by showing videos regarding girl's problems. The video made parents aware of how they treated girls.(Zone education department senior advisor on quality control)

Toilet construction in this project was facilitated at low cost by using a low cost design and high levels of community consultation and contributions. It developed the school facilities and enhanced ownership.

2.4.6 What are the key lessons learned about what has worked or not worked, why, for whom, under what conditions and with what effects?

Lessons learned regarding approaches

Approaches to community participation and change

Several groups of stakeholders were brought together to raise awareness of the change that is needed. Those that benefit the most from the potential change (women, girls) and leaders will become involved to facilitate change from within the group. Community participation and ownership are key for change to take place.

Female role models who came from the area and have completed their education were invited to visit the schools and share their experiences with groups of boys and girls. They spoke of the challenges they faced such as domestic chores and demoralizing psychosocial circumstances, and how they overcame these to complete their education and enter the workforce. Girls were inspired and gained confidence about possible future opportunities for them. This is an effective way of inspiring girls to develop their potential.

Capacity building

- The development and capacity development of the Girls Education Advisory Committees (GEACs), female student forums and the girls clubs were very important. The GEACs were instrumental in enabling changes for girls at school and at home as it also influenced community awareness and responses. The teachers involved benefitted themselves and were eager to facilitate the change process.
- The project continues to work toward systemic change and building the capacity of government officials at all levels.
- Capacity of communities have improved especially regarding contributing to and monitoring school activities that benefits girls (e.g. the building of toilets and classrooms and teaching and learning).
- LCDE capacity has improved through the employment of skilled and specialised human resources. This included recruitment of qualified gender and monitoring and evaluation specialists.

Equity and gender equality

The project focuses on girls' education and improving the lives of girls. The attitude changes towards girls' education opened up the possibility of equality between men and women in other aspects of life too. The project gave voices to girls, but also to mothers and female teachers and government officials. According to the regional gender office there is enormous changes in thinking and attitudes, but when facing challenges the old thinking returns regarding male dominance. There is thus more work to be done with mothers as the decision makers. This process needs to receive ongoing support.

- Fathers decide about enrolment, but mothers decide about attendance. (Woreda official)
- A man can think of his girl better now, but not yet of his wife. (Regional gender advisor)

Gender issues cannot be addressed in isolation. Females cannot be empowered only. Programmes to uplift girls have implications for boys as well. Boys collaborated to assist girls, but they feel excluded. In future interventions boys should be included as well.

Monitoring and Evaluation

- Continuous monitoring of activities as they happen in schools is necessary to identify problems in implementation. For example the schools that have not implemented any of the GAC tasks, need to be followed up.

- Monitoring tools need to be simplistic to enable teachers or facilitators of activities to keep record of who gets training and what activities are being implemented. In a large project like this it is not practical for an external person/organisation to monitor activities.
- LCDE experienced a challenges to obtain valid data from the control woreda (e.g. attendance data) as there is no leverage to assure collaboration. .

2.5 How scalable and sustainable are the activities funded by the GEC?

2.5.1 What is the project's sustainability strategy?

The project is planned to be sustainable. The reason for this is the alignment to MOE policy and delivery through existing systems and personnel. The main LCDE intervention focuses on system changes and is completely aligned with government strategies and policies. Stakeholders are provided with skills, practise, reference manuals, templates etc. to continue with their own initiative. By training staff within the education system they are empowered to implement the change and can keep on doing this without external support. The principle the project is built on is thus to bring about sustainable change.

The project created formal structures in the school such as SPAM and GEAC that can become part of the functioning in each school.

The project provided training for role players on each level to take part in the process of implementing gender responsive teaching in schools.

The fundamental interventions that ensures ownership by communities, including the SPAM and teachers training can be sustained in the educational system. There seems to be enough commitment in the educational system to do so. The educational authorities have already committed to extend the intervention to 476 other schools in the zone.

Attitude change in girls, parents and community can grow over time, but this process need continuous support.

- Link capacitated the community and made them aware of the importance of education. The entire community became aware of educational challenges and has awakened. The community is aware that LCD and the schools are working for their daughters. Parents reacted by supporting the girls. In this way the community took ownership of the LCD programmes. **(**Zone Education manager).

2.5.2 To what extent has the project identified the pre-conditions for scaling up and /or sustaining its activities and results?

The project is developed with the aim of scaling up and sustaining activities and results. It has built in structures part of the school system to enhance sustainability. There are a few pre-conditions needed to sustain specific aspects of the project. The activities that made the most impact in this project was access to additional tutorial classes, provision of sanitary materials and counselling from GEAC teachers. The sustainability of these activities need to be assured:

- The education department need to take over the implementation of the tutorial classes. Will teachers commit to such intensive work 3 times per week without additional compensation? Tutorial classes will have to become part of the educational system in an effective way or the level of teaching need to be upgraded.
- The community members commit to providing resources to ensure sanitary materials for girls in schools. This may not always be possible especially in situations of economic hardship.
- Counselling by GEAC teachers made a real impact on girls' self-esteem. The education authorities need a succession plan to continuously train female teachers for these positions or it should become part of teachers' training in tertiary institutions.

- The training of teachers in gender responsive teaching methods is in progress. It is important that all teachers get training and are able to implement it in their classes before the end of this project. Only if these training methods are implemented as part of the school system will it be sustainable.

In the last part of project implementation LCDE will have to focus on implementation and strengthening of the change that has started and building the capacity of educational authorities to sustain these interventions.

2.5.3 How has the project strategically engaged with other organisations to achieve complementary effects?

Engagement with the zone and woreda departments as well as communities will contribute to sustain the project. In appendix 7 the project has listed various organisations that will take responsibility for continuing the project after GEC. The education department will take over some of these functions as part of their core activities such as training and support and provide some physical resources (e.g. fuel for supervisor's motorbikes):

- The project is now in our blood. We scale it up, take it forward; no going back. (Zone Educational manager)
- There is a change in community attitudes. People start to believe: Girls education becomes society education. Education is the only way to overcome poverty. (Zone Educational manager).

Community members will also provide resources so that activities can continue as part of the schools:

- Our school is going to be very strong in future, since teacher capacity has been built to deliver effective teaching and learning. The school community is very active and supportive of the school management and development and effective leadership of the school has resulted in the continuous improvement of the student performance. (Teachers' group discussion)
- Ability to openly discuss menstruation make a large difference. Girls' sanitary room and pad availability increased girls' school attendance. This "should not be allowed to stop". At every school there is a donation box to make sure the community participate to make sure this can continue. School gardens and vegetable gardens were utilized to support this programme to help girls to get sanitary pads. (Zone Education manager).
- Communities and schools are mobilised to make sure that the changes will be lasting, even without funds and if LCD's involvement is terminated. The government has no money for new initiatives. But these programmes can be implemented because the community takes ownership and increases the school's income through involvement in donations and school farming and other projects (Zone Education manager).

Dissemination seminars at regional and federal level will be held to disseminate findings to important stakeholders such as the Federal Ministry of Education, DFID Ethiopia, other donors and NGOs. To date project findings were disseminated at regional gender conferences and partners sharing events. National level relationship building will be furthered in the last phase of the project.

Tertiary training institutions need to include gender responsive teaching methods as part of their formal training courses and can be involved with ongoing in-service training of teachers in the area.

2.5.4 To what extent has the project leveraged additional investment?

The project sourced additional funding for the project such as from Oxford University Press as well as the Girls' Hub Growth & Changes manuals.

2.5.5 What are your plans for delivering sustainable results?

During the last year of implementation the project team will focus on strengthening the change that has happened already. The project will focus on implementation of gender responsive teaching methods in schools among all teachers. The project will strengthen relationships with educational authorities and make contingency plans for implementing the core of the project as part of the education system.

2.5.6 What are the lessons learned about the scalability and sustainability of the activities delivered?

- If you want sustainable results it is necessary to link with the existing structures, involve existing structures and provide training so that the effect of the project can be part of the structures.
- If you want a project to be scalable into a larger system, implement it in a small number of schools to show the positive results. Disseminate the positive results to the larger system through policy reflection papers to encourage others to replicate the project to get the same results.
- Community ownership is important so that change can be supported by the role players within each school.

3. Conclusions

The midline evaluation shows that the reading and numerical ability of girls in the project schools improved significantly ($p<0.0001$) compared to the control group girls. The disparity between boys' and girls' school performance in the core subject test decrease by 1 to 2%. There are girls that perform very well and are able to compete with boys for raking positions, which was not seen before. This indicates that there is significant change taking place in the school system where the project is being implemented to support girls' education. Despite significant change there is still concern that girls are not on the level expected of their age group.

The attendance of girls improved over the period of two years, compared to the control group. There is a pattern in attendance that girls' attendance is low in September when school starts after the holiday and again in January to March. There is narrative evidence that girls are able to stay in school despite menstruation, that girls drop out of school less often and that girls even return to school after they have previously dropped out. These differences are likely to be attributed to the intervention.

Through the intervention some of barriers to girls' education were addressed: girls' self-esteem improved; girls received guidance and materials to protect themselves during menstruation; girls received academic support to improve their achievement. On the other hand, some barriers decreased somewhat and several barriers still exist, such as poverty, household chores, negative community attitudes.

All stakeholders (girls, parents, teachers, woreda officials) rated tutorial classes, access to sanitary protection and counselling by teachers of GEAC as the most prominent interventions that resulted in change in attendance and performance of girls. Rewards for good performance and community meetings were also mentioned by some stakeholders.

Interventions directly focusing on the girls like tutorial classes, provision of sanitary protection and counselling contributed to improve girls' self-esteem and their perception of the value of education. They participated more in class and gained academic confidence. This is visible in improved attendance and school performance. Some of the girls performed very well in school.

In almost all measures the project girls rated parents and teachers and schools less positive than in baseline. Compared to that, the control group girls rated all scales extremely low. It seems as if there is a pattern we have to take note of. The project girls' awareness of what girls' education could be like and their increased self-confidence could have raised their expectations. These expectations could have played a role in their evaluation of other role players' contribution to their education. It seems as if they expected more of their parents and teachers.

The control group on the other hand, is extremely negative, much more than in baseline. The control group provides a complex comparison and interpretation will probably only be clearer after another project intervention year. At baseline the control seemed to be different from the target woredas, mostly due to location closer to the Soddo centre. In light of this some indicators showed a (unexpected) decrease for the control group (e.g. attendance). In addition to this there was some influence from the intervention on the

control woreda and schools (e.g. gender training by the gender officer influenced teacher behaviour in control schools.) This probably resulted in reducing the evidence of influence - showing a smaller difference between the target and control groups than what the intervention effected.

Parents who mostly have low levels of education, became aware of the value of education and have high aspirations for their children. They are aware that they have to support girls to attend school and do school work. There is narrative evidence that some parents made an effort to support their girls, but not all parents made these changes. A low percentage of parents (2%) indicated that they actually decreased domestic chores of girls and 79% did so "somewhat". Household chores remain a barrier to education for girls. Girls rated the **parental support** they received as average (seniors 4.5 and juniors 5 on scale 0-10), but lower than in baseline. Despite changed attitudes, this is not yet visible in their actions. Similarly, there is much conversation about change in community perception of girls' rights and roles. Though, the community gender norms did not change drastically as a result of the community meetings. More attention is needed to support change in parents' and community attitude and behaviour.

The **teachers** showed very positive gender attitudes in education and rated their own gender sensitive teaching high (6.9 on scale 0-10). Teachers made an effort to include girls in their teaching and encourage girls to participate in class. On the other hand the girls rated teacher's gender sensitive teaching lower than at baseline (4.2 on scale 0-10). This could be the result of girls' higher expectations of teachers. They expect change to take place faster. According to the school gender audit teachers in most schools were "partially" trained in gender-responsive teaching methods. All teachers have thus not received training yet. Gender-responsive teaching methods are thus not generally implemented in the schools so that girls could benefit from it. This should be an important focus of future implementation.

In the **school gender audit** most of the indicators were partially reached. There was an increase in the evaluation of gender sensitive teaching in the project schools (4.9 on scale of 0-10) compared to the control schools (0.43) ($p<0.001$). Teaching and learning strategies were also rated as more gender sensitive in project schools than in control schools (5.5 vs 2.8, $p<0.001$). It is clear that change is taking place in project schools. Schools implement the LCDE interventions, but it seems that they do not take ownership to initiate change beyond the LCDE interventions to improve girls' education.

Change is visible in the **woreda official's** gender attitudes (7.2 on scale 0-10). It is interesting that teachers do not experience them as responsive to the needs of girls in schools (10% mostly, 55% sometimes). This raises serious questions, as the woreda officials are providing all the training in schools to implement gender sensitive teaching. If the woreda officials do not model what they teach, it may decrease the impact of their teaching.

The results of the midline evaluation show that there is prominent attitude change among all stakeholders involved in the project. Though, these attitude changes have not resulted in a general change in action in all stakeholder groups.In terms of change theory (Plested, Edwards & Jumper-Thurman, 2006) all stakeholders are aware of the need for change. People talk about the need to change and what change is taking place – especially in the qualitative data. Changes is not so visible in the survey data that measures actual behaviour. It seems as if parents, teachers and schools now have to take the step to implement change into actions in their own environment.

The results confirm the theory of change that accurate data and policies, educational change, support systems in schools and families and interventions directly aimed to improve girls' self-esteem and enhance their learning will retain girls in school and improve their learning. We have learned that the direct interventions have more immediate impact on girls' performance and that systems change that is necessary for long-term change takes more time. It is also evident that improvement in education will also have a positive impact on the performance of boys in schools.

4 Recommendations

Recommendations by stakeholders

- Most stakeholders recommend that the current project should continue and strengthen its support for education.
- **Tutorial classes** should be provided in all subjects for all students (boys and girls) who do not do well in a subject. Teachers suggest that there should be a tutorial room, because if the school has more than one shift, the tutorial classroom is required for general teaching and they have nowhere to go for the tutorial.
- Awareness of **parents** has to be increased so that parents can encourage their children. Mothers need to be involved as they make decisions for the girls (LCDE plan to implement the Mothers' Group activity funded through the maximising results funding).
- The focus on girls' education should **start early**, before children go to school (0 grade) to open their minds and teach them from the start that they have value. This should not only be done from Grade 5 onwards.
- Schools need additional resources such as library books, reference **materials**, magazines, newspapers and laboratory equipment. Girls asked for a well-furnished library that is open for 12 hours a day. They also suggest electronic media in the school.
- More efforts should be made for the **most vulnerable girls** such as orphans and girls with disabilities and with serious economic problems. (LCDE will fund this through the maximising results funding).
- **Feedback** from girls that are in secondary school is needed so that all stakeholders can be inspired and know what is expected beyond the primary level.
- Drop-outs and repetition of **boys** should receive attention. Boys' toilets also need to be improved. Investigating the issues that contribute to boys' low performance and attendance is needed. (This was not relevant for the current project, but some information gathered through the GEC will contribute to this.)

Recommendations of the evaluation team

Theory of change

At midterm it is evident that the Theory of Change held true. All the interventions contributed to the girls attending more regularly and for longer periods. The complex nature of the education system and the barriers to girl's education required a combination of interventions included raising awareness, changing attitudes and mobilising the various stakeholders to address the barriers and create a context to promote girls' education. The midline data showed that attendance gains were not directly related to performance gains. Attendance thus do not have a mediating role in all interventions. It was found that tutorial classes and weekly surgeries (counselling sessions) presented by GEAC had a direct effect on girls' performance and was not mediated by school attendance. Tutorial classes can specifically assist girls who have not attended school to perform better. It is thus recommended that a **direct link is added** between the interventions and performance, especially with regard to self-esteem improvement and tutorial classes and that **attendance do not mediate all change**.

Delivery

Based on the results, it is recommended that LCDE concentrates its efforts during the last year of project implementation to strengthen the change that has started in all stakeholder groups and not start additional interventions. Awareness needs to be transformed into behaviour change of the various stakeholder groups. Each stakeholder group needs to take ownership so that change can get momentum and becomes visible in action. The focus should be on:

- **Parents' willingness** to encourage their girls to come to school and do well in school and to reduce domestic chores which is a barrier to education.

- Implementation of **gender-responsive teaching methods** throughout schools, so that all teachers can implement it and girls can benefit. Currently 68% teachers reported that they received some training in girl friendly education. About a third of teachers still have negative gender attitudes and do not confirm using any gender sensitive teaching. Girls experience that teachers give boys more attention in class (61%), they have low expectations of girls (80%) and that what they learn is more relevant for boys (31%). It is only when all teachers implement gender sensitive teaching methods, that sustainable change will be possible.
- Empowerment and leadership of **woreda officials.** They should be made aware of implementation issues in the school and how they can assist the school management to implement the targets of the GAP to enhance girl-friendly education.
- **Community awareness of gender equality** and how each person can take action to change perceptions and behaviour.

The importance of changing gender attitudes and behaviour is confirmed by the multiple regression analysis performed on girls' midline data. The girls' evaluation of *teachers' gender sensitive teaching*, their *perception of gender attitudes in education* and *community gender attitudes* contributed significantly to their change in EGRA and EGMA scores since baseline.

Certain aspects of the project can be enhanced by emphasising or redirecting attention to planned activities. For example the focus on mothers and their decision making skills; more reproductive health topics to be included; ensuring that vulnerable girls are included (and measured and documented) in program activities; and expanding the awards programme to include more than performance but also to enhance positive role models.
The need for female role models is increasing as the project progresses. This can have a large influence on the sustainability of the changes in girls' enrolment, attendance and performance. (This is also planned as part of the maximising result funding).

Scalability and sustainability: The design of the intervention enhances sustainability of the project. LCDE specifically has to develop implementation strategies in collaboration with the woreda officers how to implement important components of the project as part of the educational system where financial resources are limited. Specifically there should be strategies:

- To assure financial support from parents or community members to provide girls with sanitary protection to continue the benefit from the project.
- To continuously train female teachers as counsellors for girls in schools. This could be included in teachers' training to ensure teachers can implement this in future.
- To implement tutorial classes in such a way that it is effective in an education system with limited resources.

The last part of the implementation will focus on strengthening systems change to enhance sustainability and to implement the handing over as outlined in Appendix 7.

Monitoring and evaluation: For the endline evaluation, EMET has to work with the Woreda offices that provides EMIS data in an effort to obtain data that can be used to evaluate the impact of the intervention. It is important to have this data to determine in the value of the project on the woredas as a whole and not only in the schools participating in the evaluation. It is also possible that we can shorten the survey used in the final evaluation only to assess the most important variables.
It is recommended that the long term impact of the intervention on individual girls should be investigated. Girls that excel academically and move to high schools and those who use their education to improve their lives without further education need to be followed up. This will become more important as the project progresses. This is especially true if considering that there are few high schools available and it will be important to

provide options and information to girls who might become despondent when their expectation of going to high school is not realised.

Policy issues: Tutor classes in this project made a difference in girls' attitude towards school, their attendance and performance. All participants of the group discussions asked for more tutor classes, for all learners in all subjects. Instead of implementing more tutor classes, there should be an investigation to understand why school classes are not as effective. Class size and teaching methods may be different. A recommendation is to focus on upgrading general teaching in the school and implementing effective teaching and learning strategies in all classes, instead of investing more in additional tutor classes.

Project Feedback on Midline Evaluation Report

We have found the initial reflections on what seems to work very helpful as our thoughts are currently turning to post-2017 and the design of a streamlined version of our project model, building on the elements which have the most impact, which will be more feasible in terms of up-scaling. Based on the midline report, we now know that such a model should include at the very least tutorial classes, sanitary packs, counselling services, role models, training in active learning and gender friendly teaching, support to Girls' Education Advisory Committees, Gender Action Plans and community campaigns to address traditional gender norms.

We feel that the mid-line evaluation design failed to measure the impact of the toilet-upgrade. Based on our contextual knowledge of the project and the continuous feedback we receive from stakeholders, we feel that the availability of girls' toilets in schools for the very first time was extremely critical in enabling increased attendance and self-confidence of girls. Therefore the project design for post 2017 should also include supporting the Ministry of Education's standard for school toilet construction.

We agree with the findings and understand that they largely support the existing Theory of Change, although we will make a small adaption as suggested in the report to show a direct link from the project inputs to improved learning outcomes without a necessary preliminary step on improved attendance. We can also try to reflect timeframes in that the report shows us direct interventions to support girls have more immediate impact and the systems changes necessary for sustainable improvements take longer.

We find that the midline reflections show our focus on capacity- building and strengthening of existing systems stands the project in good stead for wide-scale reach of the project and for sustainability after project phase-out. The project's alignment with the education system has led to buy-in, political support and the potential for widespread impact. The project processes are now embedded in ongoing systems for education delivery in our project schools and woredas. We must work in partnership with the Ministry of Education to develop strategies in collaboration with MOE to ensure continuation of key project components (e.g. sanitary pads, tutorials, counselling) as part of a system with limited resources.

In the next and final year of delivery, we will incorporate our Maximising Results interventions. These will enhance the project design, for example by establishing mothers' groups, ensuring inclusion of most-vulnerable girls, expanding the awards programme and deepening the role model work. We will also focus on strengthening the changes which have started through the project and encourage a transition from increased awareness to behavioural changes. For example, teachers need support to embed gender sensitive pedagogy in classrooms and woreda staff require further training to increase their support to gender responsiveness of schools.

The evaluation design does not go deep enough in trying to investigate the possible reasons behind 'increased awareness but low behavioural changes'. Based on our contextual knowledge and the continuous feedback we receive from stakeholders, it has become clear that we underestimated the labour vacuum that is left at home when girls' duties are decreased (due to girl's enormous input into household chores). Of course establishing mothers' groups and awareness-raising initiatives will contribute to positive outcomes, but the

project design should also focus intensively on supporting mothers' commitment to find practical solutions enabling them to send their daughters to school every day.

Looking forward, we must endeavour to foster the deepening and strengthening of a change process which the midline has shown can bring significant benefits for girls, teachers, parents, schools and communities. There is still a lot of work to be done. The report shows that 76% of parents still think that girls learn less, 64% think that girls are not as clever as boys, and 71% think boys' education is more important. We need to capitalise on the momentum and ensure awareness translates into actions. We hope that the endline data (scheduled for collection during Nov / Dec 2016) will demonstrate an increased link between high aspirations for girls and improved support from all stakeholders. We would like to consider options for longer-term tracking of the girls who have participated in this project, for instance, in terms of how many of them successfully complete the transition to secondary school, average age of marriage, socio-economic status in the future.

We know that there is still a lot of work to be done to "ensure inclusive and quality education for all" (SDG 4) & "achieve gender equality & empower all women and girls" (SDG 5). Whilst our midline report shows successes in relation to girls' attendance, retention and learning outcomes, the findings have also enabled us to see how deep-rooted the challenges regarding girls' education really are. We as an organisation have now become grateful for the improvements witnessed as we have become aware that we are dealing with issues that are entrenched in societal norms and values. There is a complex set of factors affecting girls and we need a deeper analysis of impact (various intervention model aspects) to drive scalability.

We believe that a refined model should include an increased focus on Early Childhood Education (lack of which is a major factor in poor learner outcomes as well as a cause of girls' poor attendance) as well as a specific focus on boys as changing gender norms involves working with boys as well. The midline shows that the general school improvement which this project effects also has a positive impact on boys. Boys in our context have their own challenges, and they need a bigger voice in designing the next phase.

Our plans to scale up a streamlined model of this project are encouraged by the midline findings. We now need to complete our consultation with MOE partners at all levels as to the next step and find out more about the funding that will be available post 2017. We are considering expansion within Wolaita, to another zone in SNNPRS, to another region of Ethiopia as well as a multi-country approach to improving girls' education. We look forward to working with our M&E team as well as the GEC Fund Manager as we explore these options and hopefully design a follow-up programme which can impact positively on many thousands more marginalised girls.

This project can be compared with the growth of a tree:
When a seed has grown into a little plant of 30mm, it has attained the most important feats in its development. It has germinated and grown 1000 times in volume and looks like a tree already. To become a three meter high tree it must grow another million times in volume. To do that it needs nurturance, good soil and regular water. An intervention that developed a seed into a 30mm plant can be regarded as successful, but to become sustainable it needs nurturing until it is large enough to be termed self-sustaining.

Annexes

1 Logframe

2 Outcomes Spreadsheet

3 Changes to Project Design

In this Annex, changes to the project's interventions since the proposal is outlined.

Table A1: Intervention types and changes to interventions

Intervention types	Planned at proposal stage (X)	Added?	Removed?	When?	Describe change and rationale
Psychosocial support	X	Yes		After baseline	Baseline revealed issue of girls' low self-esteem
Provision of underwear	X	Yes		After baseline	Baseline revealed need to provide underwear to enable use of reusable sanitary pads
Talks by educated female role models to inspire girls	X	Yes		After baseline	Baseline revealed lack of female role models for project beneficiaries
Awards for well-performing girls and supportive teachers / parents	X	Yes		After baseline	Baseline revealed need to recognise and celebrate strong performers and to motivate girls and their supporters
Introduction of mothers' groups	X	Yes		Maximising Results	Ongoing project reflection revealed need to encourage mothers to reduce domestic chores and support improved punctuality / attendance
Provision of stationery sets for vulnerable girls	X	Yes		Maximising Results	Ongoing project reflection and requests from project stakeholders revealed need to support specific subset of particularly marginalised girls with material support to prevent drop-out
Awards for head teachers, GEAC, Girls' Forum Coordinator & Gender Officer	X	Yes		Maximising Results	Ongoing project reflection revealed need to recognise and celebrate school managers and gender focal people who excel in supporting girls' education
Awards for Cluster Supervisors who support girls' education	X	Yes		Maximising Results	Ongoing project reflection revealed need to recognise and celebrate cluster supervisors who excel in supporting girls' education
Support REB to print & distribute girls' education role model pamphlets	X	Yes		Maximising Results	Request from key project partner revealed need to provide more copies of case study book showcasing successful women within project target schools
Study tours to disseminate GEC best -practise	X	Yes		Maximising Results	Ongoing project reflection revealed need to share learning with ministry of education officials in other Sub-Saharan African contexts to increase the scope for sharing and influencing best practise

4 Midline Research Methodology

Midline data was collected by the external M&E team during November 2015 in collaboration with woreda staff as data collectors. The use of woreda staff was motivated extensively during baseline data collection. The project is done in partnership with the educational sector. The educational staff is thus involved every step of the way as a capacity-building exercise. Educational officials have access to schools and can speak the vernacular of the children and parents. Possible drawbacks of using educational staff (multiple roles, self-censorship of participants) were debated in discussion with FM and DFID Ethiopia supported the design. Possible complications were addressed during training at baseline and midline.

4.1 Training of data collectors

Training took place in two phases, each phase consisting of two days. Phase 1 training (7 and 8 November) was on the administration of EGRA and EGMA for the cohort of girls in the project and control schools that was identified at baseline. The training was delivered by Zewdu Gebrekidan LCDE's EGRA and EGMA specialist. The aim for the EGMA/EGRA training was to transfer knowledge and skills regarding the use, application and administration of the EGRA and EGMA tests to ensure good quality data and consistency across schools. The training was practical in nature and involved role play sessions.

Phase 2 (14 and 15 November) consisted of training to collect survey data with girls, parents, teachers and the gender audit in the project and control schools. The training was attended by 120 woreda officials and supervisors in the schools. The training was conducted in English with Amharic interpreters. All participants received a hand-out translated into Amharic of the most important aspects of the surveys and the data collection process. The training consisted of motivation to do the data collection, ethical ways of doing research, the Child Protection Policy, an explanation of the questions and how to complete the answer sheets. The participants practiced to complete all of the surveys for the various respondent groups. Challenges that woreda officials and supervisors can experience because of their dual role of doing research and implementing the intervention was discussed. As researchers they have to separate their roles as education officials from the research role. They were encouraged to record the exact response of the respondent and not to sensor the data in any way.

Phase 2 training also included the training of eight female teachers to collect the qualitative data in the four project woredas. It was decided that females should collect the qualitative data especially with girls and female teachers to enable open discussion of sensitive topics. The principles of qualitative research and group discussions were illustrated and practiced with feedback from the facilitator and group members. For example, the teachers were inclined to answer the questions of the participants or start a counselling process if someone mentioned negative experiences. This could be corrected during the training, so that facilitators encouraged discussion and reflect on what she heard to stimulate further discussion.

After the training the commitment of everyone involved was very high. Various participants repeatedly voiced their opinion that the study is very important to them. One participant said: "*This project is important to us. It is important for the girls, it is important for the whole of Ethiopia and the whole of Africa."* The data collectors were willing to work extra days to ensure that the data is collected effectively. The skills of the trained participants were adequate and the understanding of aspects such as the use of the different tools and the answer sheets were good. They would be able to dissociate from their role as education department officials and the expectation was that self-censorship by the participants would be minimal.

After the training each woreda team had a planning session to decide on the logistics of data collection. EGRA and EGMA data collection took place in all 30 schools from 9 to 13 November 2015 and the surveys and group discussions took place 16 to 20 November 2015.

4.2 Description of the data collection instruments

Outcomes/outputs were measured using a mixed method design including quantitative and qualitative data. The data collection tools are outlined below.

4.2.1 Learning and educational attainment

Girls' learning and educational attainment were evaluated using the tools described below. Learning was assessed by determining level of literacy and numeracy (EGMA and EGRA), while educational attainment was assessed using performance tests in core school subjects (grade 4 and 7 examinations in LCDE implementation woredas) and results of the national grade 8 examinations.

Early Grade Reading Assessment (EGRA)

EGRA is an individually administered test used internationally to assess reading ability. EGRA was adapted for use in this project under the supervision of the assessment expert. Two EGRA tools development workshops were held, attended by curriculum experts and subject teachers and Wolaita Zone Education Officials to develop tools for EGRA Grade 6 and Grade 2 during the baseline evaluation. EGRA tools were developed for Grade 6 in English and for Grade 2 in Wolaitigna (local language). The EGRA tool for Grade 6 was composed of three sections: *familiar words reading, passage reading and reading comprehension*. (When compared with other EGRA tools letter name knowledge, unfamiliar words reading and listening comprehension were excluded.) The EGRA tool for Grade 2 was composed of six sections and developed in Wolaitigna: *letter name knowledge*, *familiar words reading, invented words reading, passage reading, reading comprehension and listening comprehension*. The EGRA tool was similar to that of EGRA Ethiopia conducted in 2010 in languages which used Latin scripts. Both tests were piloted before it was used in the baseline assessment. In the analysis of baseline data it was found that all subscales of the EGRA test showed high Cronbach alpha reliability of more than 0.9, except reading comprehension (0.7) and listening comprehension (0.5). Due to high number of zero-scores in the data it is possible that the statistics could be biased upwards due to a spurious correlation.

Because of very low performance in these tests during the baseline assessment it was decided to use the same instruments in midline evaluation to ensure comparison between the baseline and midline evaluation. Passage reading fluency and reading comprehension were used as the most important indicators of literacy in this evaluation.

Early Grade Mathematics Assessment (EGMA)

EGMA is an individual test used internationally to assess number identification, counting, recognition of basic shapes, basic calculations, pattern extension and word problem solving and curriculum-based numeric abilities of young children. This test was adapted for use in this project. In a workshop of curriculum experts and subject teachers the tools were developed for baseline.

The **EGMA Grade 6 tool** was composed of six sections and developed in English: *number identification, quantity discrimination, missing numbers, addition, subtraction and word problems.* Since EGMA in Ethiopia has not been implemented before the experience of other developing countries was taken into consideration. The **EGMA Grade 2 tool** was composed of five sections and developed in Wolaitigna: *number identification, quantity discrimination, missing numbers, addition and subtraction.* The internal consistency of sub-scales in baseline data was high (more than .9) for most, except for missing numbers (0.6).

In the midline evaluation the same version of EGMA was used as in the baseline. Data was collected under the supervision of the EGRA/EGMA expert and LCDE staff that visited each site where data was collected.

School performance assessment in core subjects

The school performance of girls and boys is assessed using Grade 4 and 7 core subject tests. This evaluation gives a cross sectional perspective of performance in these grades year after year. The curriculum-based tests are developed in collaboration with woreda partners as part of capacity building of the

project intervention. In Grade 4 performance in English, Mathematics and Science is assessed. In Grade 7 performance in English, Mathematics, Science and Biology is assessed. The tests are administered by woreda partners. The assessment in core subjects is done for all learners (boys and girls) in the project schools. In this evaluation the test results are used to compare the girls' performance to their male counterparts (Outcome 2.3). The data collected in March-April 2015 will be used as part of the midline evaluation and compared with the baseline data which was collected in February 2013.

Grade 8 examination results

Existing Grade 8 pass rate (EMIS data) for 2006 and 2007 (2014-2015) was used to compare with the 2003-2005 data (2010 – 2013) gathered in the baseline. The Grade 8 national examination results were used to assess learner achievement at the end of primary level education. Data of the project and control schools are reported for girls, boys and the total examination pass rates (percentage of learners who passed the exam).

4.2.2 Enrolment, retention and attendance

Attendance

Attendance data for the cohort girls was obtained for the past year 2007 (September to June 2015) as part of monitoring of girls' attendance. This was compared with the attendance data collected the previous year 2006 (September to June 2014).

It is difficult to verify attendance data since the required spot checks of the accuracy of class registers by the external M&E team were not possible. Because of political sensitivity for undue influence and interference at schools and language barriers it was agreed that it was not realistic and practical to do spot checks in the required way. This was confirmed by FM.

The process of recording attendance as part of the project involves the following. The register sheets for each class is manually recorded every day. Depending on the school, these register sheets are presented to the school director (principal) at the end of the week or at the end of the month. The director will hand draw his or her own table to summarise all the sheets. A document of attendance for the whole school is compiled and handed over to the woreda officer during a school visit. Special sheets are drawn up for girls in the project and control groups. The project-specific data is presented to LCDE during a monthly Saturday morning gathering of officials and school directors. This is followed by a similar meeting of control schools, where the data is then presented by each school to the meeting at large and collected by LCDE. All the presented data will carry all the required rubber stamps from all the offices through which they have passed to confirm authenticity and correctness, but there is no other data to cross check them against. LCDE will be the first to capture the data in a computer system.

Due to these challenges several efforts were made to ensure more accurate attendance data. Specific templates were given and used to collect the relevant information for all girls. At the monthly meetings with school directors and woreda staff it is emphasized how important accurate data is. The EMET team attended a Saturday morning register data transfer session and took the opportunity to address the senior officers to underline the importance of the register data and the correctness thereof.

At all regular visits to the schools, the LDCE project staff and supervisors checked the headcount of cohort girls against recorded attendance for that day. The spot checks took place during the previous academic year and started again in October as part of the process to determine cohort drop-outs. There were a few incidences where discrepancies were noted, but these were in every case explained by the teacher as due to specific girls leaving the school before the time at which the spot check took place. In some cases the girls had switched classrooms and were on site elsewhere in the school. These seeming irregularities were not

frequent and did not lead the project to question the accuracy of data available. The monthly records in every case reconcile with the spot checks. The EMET team has visited a number of schools during the data collection process and ascertained that register sheets were compiled by teachers and were collected and processed by school directors. Qualitative evidence has been gathered from meetings with all relevant stakeholders and all this evidence supports that huge strides has been made in increasing the accuracy of attendance data of girls since the baseline report was issued. The data presented here is as accurate as we can give, although we cannot provide quantitative evidence. The project team did not provide the evaluation team with any quantitative data from the spot checks to be reported in the outcome spread sheet.

Enrolment and retention

Existing school and woreda data on enrolment and retention for the past two years were collected during the midline evaluation to compare with the baseline data. Data was collected by LCDE staff per woreda in the project and control group. EMIS data and school records are believed to be reliable and were verified by woreda staff.

4.2.3 Assessment of change in the school system

The intervention aims at changes in the educational system to create various mechanisms to support and enhance girls' education. This will be assessed using a School Gender Audit, surveys among the cohort girls as primary beneficiaries, their parents, teachers and woreda officials. This is supplemented by qualitative data obtained from various role players. These assessments will focus on change in school structures, attitudes and specific behaviours to promote girls' education.

School gender audit

The School Gender Audit is an instrument developed by LCDE to assess the effectiveness of school structures to promote gender sensitivity and girls' education. It is based on the indicators set out in the gender policy document of the Ministry of Education. The audit consists of specific and structured questions asked to relevant school staff. In this project it will be used to assess the effectiveness of the project schools to implement the project, implement the gender policy and various structures to enhance girls' education (Outcome 4). The Gender Audit includes data on gender representation in school, implementation of gender policy, girls' advisory committee, gender sensitive curriculum design, teaching and learning, support mechanisms for girls such as girls' clubs and community support for girls' education. Each aspect is rated on a 3-point scale and substantiating documentation is asked. The seven questions on gender sensitive curriculum and 9 questions on teaching and learning strategies were combined into two scales.

Gender sensitive teaching	n	Number of items	Cronbach alpha
Gender sensitive curriculum	30	7	0.97
Gender sensitive teaching and learning strategies	30	9	0.93

The Gender Audit includes a classroom observation of teachers' teaching behaviour to assess whether learning material and teaching style is gender sensitive and not based on gender stereotypes. Seven variables were observed in classes including teachers' involvement of boys and girls in the lesson, girls' involvement in class, girls' interest in class, the use of illustrations relevant for girls, application of study material relevant for boys and girls, completeness of girls' assignments and books. Each variable was evaluated on a 5-point scale (early phase, aspiring, developing, implementing, embedded).

The Gender Audit was completed in an interview with school staff of the project and the control schools. In each school one randomly chosen class was observed and rated in terms of gender sensitive teaching. This data is used to develop and assess the implementation of gender action plans annually at SPAM for the

intervention schools and merely as data collection on gender responsiveness in control schools (where no intervention such as SPAM will take place).

Gender and education perception surveys for girls, parents, teachers and woreda officers were developed based on the GEC household survey and data from interviews with key informants in the project schools during the pre-baseline study. The surveys explore the barriers to girls' education, attitudes to education, the current gender-related practices in schools and perception of community gender norms that influence people's behaviour. By comparing baseline and midline data is was aimed to show change that took place in schools, families and communities.

Girls' survey

The girls' survey asked questions about demographic characteristics of households, attitude towards education, barriers to education, educational support of caregivers, teachers' gender sensitivity, and girls' perception of gender attitudes in education and the community. The following scales were constructed from the questions in the survey. The Cronbach alpha scores obtained during the midline evaluation is given.

Scales senior girl cohort	n	Number of items	Cronbach alpha
Girls' attitude towards school	750	12	0.86
Girls' attitude towards teachers	750	4	0.78
Girls' educational aspirations	750	6	0.85
Girls' evaluation of caregiver support	750	5	0.79
Girls' evaluation of gender sensitive teaching	750	3	0.83
Girls' experience of gender attitudes in education	750	8	0.76
Girls' experience of gender attitudes in community	750	8	0.83
Girls' self-esteem	750	8	0.70

In the midline evaluation project girls were asked to rate the interventions that was implemented at their schools in terms of the value it had for attendance and school performance on a five point scale: did not occur, helped nothing, helped a bit, helped a lot and helped greatly.

The girls' survey was completed by the 750 girls in Grade 8 part of the senior cohort girls in the project and control schools. The surveys were completed in a one-on-one interview style, where the fieldworker read the question and recorded the girls' answers on an answering sheet.

The same number of girls in the junior cohort (Grade 4 during midline) (n=750) completed a simplified and shortened version of the girls' survey. The following scales were constructed from the questions asked to junior learners.

Scales junior cohort	n	Number of items	Cronbach alpha
Attitude towards school	750	10	0.77
Relationship with teachers	750	3	0.53
Parents' support	750	3	0.68
Perception of community gender roles	750	4	0.45 (did not use this scale)
Gender sensitive teaching	750	5	0.73

In the midline evaluation junior project girls were also asked to rate the interventions that was implemented at their schools in terms of the value it had for attendance and school performance on a five point scale: did not occur, helped nothing, helped a bit, helped a lot and helped greatly.

Parents' survey

The parents' survey included questions on the demography of the household, barriers to education such as disabilities, distractions from school work, family's perspective on education, decision-making, and support for girls' education as well as parents' perception of girls' education and their perception as indicator of community gender norms. Additionally, they were asked how they participate in the school-community interaction to promote girls' education. Parents were also asked to rate the interventions that was implemented at their schools in terms of the value it had for girls' attendance and school performance on a five point scale: did not occur, helped nothing, helped a bit, helped a lot and helped greatly.

One parent per girl in the cohort (preferably the primary caregiver) was interviewed while the interviewer completed the responses on the answer sheet. Almost equal numbers of mothers and fathers completed the survey. The following scales were constructed from the parents' responses:

Scales of parents' data	n	Number of items	Cronbach alpha
Parents' support for girls' education	750	4	0.72
Parents' perception of gender attitudes in education	750	9	0.73
Parents' perception of gender attitudes in community	750	8	0.73

Teachers' survey

The teachers responded to questions on their gender perceptions in education and in the community. They also evaluated gender sensitivity in their own pedagogy and the inclusion of girls in the education process. They were asked their opinions on the involvement of various stakeholders in the promotion of girls' education. In the midline evaluation teachers were asked to rate the interventions that was implemented at their schools in terms of the value they observed it had for attendance and school performance of the girls. Each item had to be rated on a five point scale: did not occur, helped nothing, helped a bit, helped a lot and helped greatly.

Ten teachers per school (5 male and 5 female where possible) in the selected sample schools completed a paper and pencil survey. The following scales were constructed from these questions.

Scales of teachers' data	n	Number of items	Cronbach alpha
Teachers' evaluation of their gender sensitive classroom teaching	300	7	0.79
Teachers' perception of gender attitudes in education	300	6	0.67
Teachers' perception of gender attitudes in community	300	8	0.79

Woreda officers' survey

The woreda officers and supervisors who attended the training for data collection were asked to complete the survey to assess their own gender perceptions and behaviour and how they perceive the community's gender attitudes. Questions were added to evaluate how they perceive changes in schools. We included questions on their experience of the MOE in promoting or hindering the implementation of girls' education and collaboration with the community. The survey was completed by 106officers from the five woredas.

Scales of woreda officials' data	n	Number of items	Cronbach alpha
Woreda officials' perception of gender attitudes in education	106	9	0.81

Woreda officials' personal perception of gender attitudes	106	8	0.87
Woreda officials' perception of the community's gender attitudes in education	106	9	0.86
Woreda officials' perception of the community's gender attitudes	106	8	0.82

4.2.4 Qualitative data collection

Qualitative data was collected as part of the midline evaluation to determine the changes that took place as a result of the various interventions that were implemented. Qualitative data was collected by an EMET team member and specifically trained female teachers. The qualitative data is used to triangulate findings from the quantitative data and to explore issues arising from the data where possible. The following data was collected.

Open space technology involving 47 woreda officials

During June 2015 47 woreda officials of the 4 project woredas participated in an open space technology session. The purpose of the session was to allow a large and diverse group of stakeholders to contribute meaningfully and in a non-threatening environment. The purpose of this session was to identify *significant changes* and success stories due to the intervention at Woreda and school level (including good practices and lessons learned). Participants were asked to vote for the two most significant changes they observed as a result of the project. The most significant four changes were discussed in detail in small group discussions using local vernacular. The evaluation team members (including LCDE staff) were responsible to facilitate and capture discussions.
Additionally participants were requested to highlight any negative consequences of the project.
A local representative translated the plenary session and further discussions in local vernacular and notes (from flipcharts) were translated directly after the session ends.

Key informant interviews with educational officials

At midline 4 key informant interviews were conducted with woreda and zone managers who were informed of the interventions. The goal of the interviews was to identify the changes they observed as a result of the interventions by LCDE and to explore the impact on the educational system and potential sustainability of the results. The specific questions asked were the following:

1) What change did you observe as a result of LCDE's GEC project in the schools? Give examples of evidence of change.
2) Please indicate what was the main strength of the project? What makes this project unique?
3) Do you believe the project is value for money (Effectiveness, Efficiency and Economy)
4) What plans are in place to ensure sustainability of the project outcomes?
5) What activities that were planned were not implemented yet?
6) Were there any unanticipated consequences or outcomes that were not intended (positive or negative)?
7) Are there any useful lessons that can be drawn from this project?
8) What barriers still make it difficult for girls to attend school and to achieve well?
9) What suggestions/recommendations do you have to improve girls' education and general education in future?

Participatory group discussions

An innovative strategy of structured group discussions was conducted to encourage group participation with various stakeholders. The group discussions were led by the female teachers (two from each of the four intervention woredas) who were trained to implement the group discussion technique. The discussions were held in the vernacular of the participants. At midline 13participatory group discussions were held.

Group discussion with girls

Four group discussions were held with senior girls (approximately 40 - 50 girls) in the 4 intervention woredas. Teachers were asked to assist in recruiting girls in leadership positions and vulnerable girls to give their opinion on the project. The following questions were asked:

1) Can you tell us about the girls' education project in your school? What was done as part of this project?
2) What changes did you observe in schools in the past two years?
3) Why did these changes take place?
4) What helped you to attend school? List and vote to place in rank order.
3) What helped you to learn and achieve good academic results? List and vote to place in rank order.
4) How did parents support you to achieve well in school? Give examples of how their behaviour changed.
5 What changes did you observe in the way teachers present their classes? Give examples.
6) What is the role of Girls Education Action Committee in school? What do they do for you?
7) How did the girls' club help you to attend school and to learn?
8) How did the provision of sanitary pads help you to attend school?
9) What makes it still difficult for you to attend school and to do well in school?
10) How could schools support you more to increase your attendance and performance?

Group discussion with boys

Two group discussions were held with boys in project schools (20 - 25 boys) to determine their perception of the project and how the project affected them. Previously we identified the boys' reaction as a threat to the successful implementation of the project.

1) Can you tell us about the girls' education project in your school? What was done as part of this project?
2) What changes did you observe in the school during the past two years?
3) What changes did you observe in the behaviour of girls?
4) What positive and negative consequences did the GEC project have for boys? Give examples.
5) What role did boys play to help promote girls' education (as enablers or barriers at school with female students and at home with sisters)?
6) How did you experience all the attention to girls' education? How did it change how you see girls? What contributed to this change?

Group discussion for parents

Two group discussions were held with parents of cohort girls (20 - 25 parents) to determine the changes they observed and how they participated in the project.

Questions:

1) Can you tell us about the girls' education project in your school? What was done as part of this project?
2) What changes did you observe in the way girls go to school and achieve in school the past two years? Can you give us examples?
3) Why do you think these changes took place?
4) How did you change household patterns to support girls to go to school? Can you give us examples?
5) How did you participate in community interventions (SPAM) to bring about change in schools?
6) What changes did you observe in the schools? Give examples.
7) What changes did you observe in the people in your community's attitude towards education?
8) What barriers still exist that makes it difficult for girls to go to school and to study?
9) How can girls' education be promoted more?

Group discussion for female teachers

Three group discussions were held for female teachers from the 4 intervention woredas involving 24 – 30 teachers. One of these discussions were conducted by the EMET team members as part of the training session.

Questions:

1) Can you tell us about the girls' education project in your school? What was done as part of this project?
2) What changes did you observe in girls' education the past two years?
3) What aspects of the LCDE intervention contributed to girls being able to attend school? List and vote to rank order.
4) What aspects of the LCDE intervention contributed to girls being able to learn in school? List and rank order.
5) Why do you think these changes took place?
6) How did the Girls Education Action Committee contribute to girls' achievement?
7) What kind of problems did girls discuss with you?
8) What barriers still exist that make it difficult for girls to attend school and do well at school?
9) What further interventions could assist girls' education?

Group discussion for School Management team

Two group discussions were held with the school management team**,** including the school director, vice director, PTA Chairperson, GEAC Chair, ETB Chair and SIC Chair. About 12 to 15 members participated in the discussions.

Questions:

1) How was the Gender Action Plan developed and implemented in your school?
2) Which of the targets of the Gender Action Plan were reached and which were not reached yet?
3) Can you give us examples of gender sensitive teaching in your school?
4) How did the simulation game assist you to improve education in your school?
5) What changes did you observe in girls' education the past two years as a result of the LCDE intervention?
6) Which specific aspects of the programme contributed to the changes in attention? List and rank order.
7) Which specific aspects of the programme contributed to the changes in girls school work? List and rank order.
8) Were there other outcomes that you did not expect? This could be unintended outcomes that strengthened or limited the results of the project.
9) What interventions are still needed to improve girls' education?
10) How can you make sure of the sustainability of the intervention?

The interviews and group discussions were recorded with the permission of the participants. The facilitators were asked to make summaries of the responses of the participants. The recordings could assist them in making the summaries. These summaries were translated into English for analysis.

4.3 Selection of participants

In the Wolaita Education zone all girls from the 115 target schools in 4 woredas (in total 56 000 girls) participated in the project. For the evaluation of the intervention 15 project schools and 15 control schools were selected proportionally from the woredas in collaboration with the woreda officials. In the baseline 50

girls per school (25 juniors and 25 seniors) were selected at random from the enrolment registers of the schools, to form part of a cohort girls to be followed throughout the project. Each girl was assigned a unique identification number to link her data from various assessments and various sources (EGRA, girls' survey, parents' survey, attendance data).

Before midline data collection LCDE contacted all project and control schools to determine if all the girls who were part of the cohort were still in the school. Girls who were not in the same school but moved to another school in the project woreda were followed up. There is no indication that there were girls that where included in other school's girls list. The girls that were not traceable, but dropped out of school or moved to other areas, where replaced with girls from the same grade group, chosen in the same way as the original sample, by using systematic numbers. In the project schools 15% (n=55) senior and 10% (n=38%) junior girls were replaced. In the control group 29% (n=107) senior and 22% (n=81) junior girls were replaced. Provision was made in the sample size calculations for a drop out of at least 10% of the sample. To determine the influence of high replacement of girls at midline, two comparisons were done.

1) The baseline data of cohort girls who participated in both assessments were compared with those who were not part of midline assessment (dropped out), to determine if specific girls left the project. The two groups of girls were compared using the scale scores for girls: attitude towards school; attitudes towards teachers; aspirations; caregiver support; perception of gender sensitive teaching, perception of gender attitudes in education, perception of community gender attitudes and a total EGRA and EGMA score. Two-tailed equal variance t-tests were done. There were no statistical differences, except that the girls who left the project schools had higher EGRA and EGMA scores at baseline ($p<0.05$). The pattern of dropout shows that low performing girls dropped out of the evaluation of the control group, while higher performing girls dropped out of the project schools. The project schools succeeded in keeping weaker girls in schools. The implication is that it may be more difficult for the project to show positive results (which eventually was not the case).
2) In the second comparison midline results of cohort girls were compared with the newly replaced girls to determine the effect of the missing girls and replacement on the evaluation. The same scale scores were used. There were no significant differences between the two groups neither in project schools nor in the control schools.

The higher than expected attrition and replacement of girls at midline will therefore not seriously influence the long term design of the project evaluation.

Parents: One parent per girl in the cohort group from project and control schools were invited to attend an interview at the school to complete the parents' survey. Interviews were conducted with 750 parents of senior girls and 750 parents of junior girls. In the project schools 30% parents of junior girls interviewed were males and 70% were females. The same ratio male and female parents (34% and 66%) of senior girls were interviewed. Equal number of male and female parents in the control group were interviewed.

Teachers: 10 teachers from each of the 15 project and 15 control schools who were willing to complete the teachers' survey were involved. We planned to have 5 males and 5 females from each school. We received 300 surveys back from 67% male and 32% female teachers in the project schools and 49% male and 51% female teachers from the control schools.

Woreda officials: 106 woreda officials and supervisorswho were part of the data collection training completed the survey. They were from the target and the control woredas. In total 97 (92%) were male and 9 (8%) were female.

Selection of participants for qualitative data gathering

Purposive sampling was used to select participants in qualitative data gathering. Each of the group discussions was conducted in a different school to get a wider perspective of gender issues in each woreda. Therefore, different schools in each woreda were selected for the group discussions. The schools for the qualitative data collection included schools close to the central office (semi-urban) and schools in remote

areas to be representative of the schools in the project. Figure 9 illustrates in which schools the various group discussions were done.

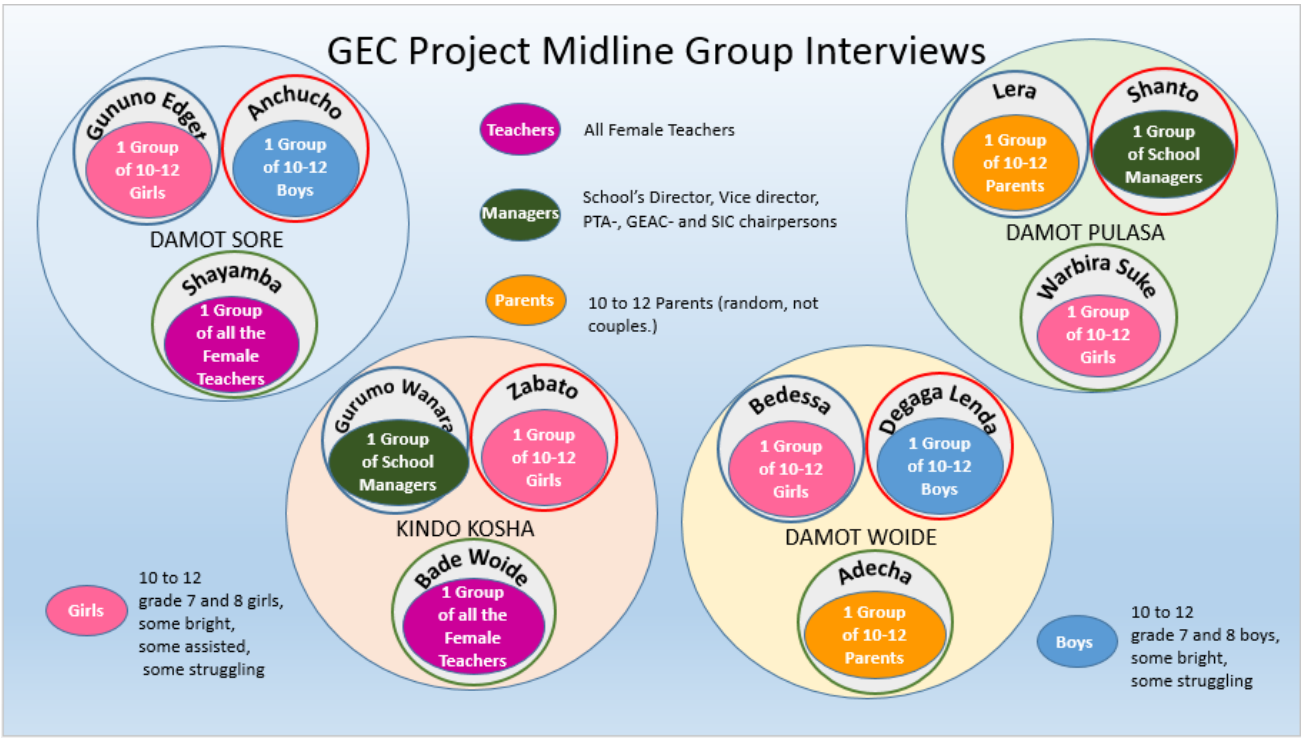


Figure 9 Planning of group discussions in different schools

Girls were selected randomly from different senior grades (G7 – G8) with the assistance of the class teachers. The request was to include girls who were leaders among the girls as well as vulnerable girls who were selected to attend tutor classes. We did not specifically ask them to select girls with disabilities because the project was aimed at all girls.

Boys were selected in the same way from different grades to represent the boys in the school.

Parents of girls in the cohort, who completed the surveys, were asked to volunteer to join the group discussion. This group probably does not represent general parents, but rather those who show more interest in their children's education and who probably participate more in school activities. They were however asked to represent and voice general parents' views.

The eight **female teachers** were identified and recruited by the woreda offices to be trained as group facilitators. As part of the training they took part in a group discussion. In their turn as part of the data collection they conducted group discussions with other female teachers recruited from different schools.

School management teams were specifically requested to include the school director, vice director, PTA Chairperson, GEAC Chair, ETB Chair and SIC Chair where available. However, at some discussions other school leaders were also included.

All group participation was voluntary and the participants gave informed consent. About ten group members (ranged between 8 and 10) were recruited for each group discussion, except for the school management teams were some discussions included only four participants.

In midline evaluation less group discussions were conducted than in the baseline study. We regard 13 group discussions with various groups of stakeholders as sufficient to gain enough data on the changes in schools

and recommendations for improvement and fine tuning of the various aspects of the interventions and to explain some of the findings from the quantitative data. This was confirmed as we got similar data from many of the groups. We regarded the similarity in the results as indication of data saturation.

4.4 Supervision of data collection

LCDE staff and the EMET team accompanied by Wolaita Zone Education Bureau experts and Woreda Education Office experts, visited all the schools where data collection was taking place. The purpose of the supervision was to check if data was being collected by the approved woreda experts who took the training, if the data was being collected according to the agreed procedure (friendly approach, use of materials and equipment, provision of appropriate orientation,…etc.) and if the data was being collected from the correct participants. The experts attended to the conduciveness of the environment for data collection. The data collection was well planned, organised and managed. There were no reports of any disruptions or any behaviour that could be perceived or interpreted as intimidating. The data collection procedures were followed and data was collected in a professional way.
Similar to the baseline study, the various respondents were willing and enthusiastic to participate in the evaluation process. Parents turned up in large numbers at the schools. Great care was taken to collect data from all participants and to reach the target numbers for all respondent groups. For example, when it was discovered that one page of an answer sheet was missing for one girl, the LCDE staff member drove to the woreda office, picked up the woreda official and went back to the school to complete the last part of the survey that was missing. In this way a response rate of 100% was obtained.

To test the assumption that data collection by woreda officials will not cause a risk of self-censorship among participants, observations were made during data collection by an EMET member. She observed the openness of the discussion and quality of responses by the participants. Informal discussions with participants after the interview further indicated that there were no intimidation or negative feelings towards the data collectors. In one instance, a parent asked the data collector questions after the interview about how to raise children in a gender sensitive way.

An EMET member attended four group discussion sessions facilitated by the female teachers. The facilitators were confident and stimulated lively discussions among various stakeholder groups. The girls were eager to participate. The process of voting to rank outcomes of the project worked well as they eagerly participate. The group discussions were recorded in most cases to supplement the notes made during the discussions.

4.5 Data verification and quality control

Data verification and quality assurance was done on various levels to ensure the accuracy and reliability of the data collected. Data collection was supervised by LCDE and EMET to verify the accuracy of the data. Woredas officials were trained to administer the tests and to record the results. The quality of data entry was enhanced by using a system of data scanning for most of the data. The accuracy of the data entry was verified using specialised electronic tools. Software was employed to eliminate any fraudulent, accidental or technical duplication of data that may lead to the skewing of statistics. Missing data was traced and redressed or accounted for. The EMET team reviewed the data during data analysis. A few contradictory answers were noticed and not included in the data presented. EMET is confident that the data collected during the midline assessment is as accurate as can possibility be and a presentation of the population studied.

EMET cannot guarantee the accuracy of the EMIS data on enrolment, drop outs and Grade 8 national examination results. This data is obtained from the woreda offices as *official data*. There are serious irregularities and inconsistencies with previous data. We enquired about the accuracy of the data and asked it to be verified. The feedback was that it is generally accepted that “data is prepared to serve different

purposes". Inaccurate or inconsistency of official data was one of the main risk factors identified during the project planning. The authorities assured us that the "data presented in this report is in line with the data that is available at Woreda, Zone, Region and Federal level." After several efforts to improve the accuracy of the data, we decided to present it and to highlight our evaluation of accuracy next to the data.

4.6 Data analysis

After a process of data scanning and data cleaning, data was analysed using Excel 2013. Midline data was analysed for the following purposes:

1) To compare the data of the project and control schools to assess similarities and differences at midline
2) To compare midline data with baseline data and the targets set for the project.
3) To explore variables that contributes to successful change in learning among girls (multivariate analysis).

In the analysis of the EGRA and EGMA data the following processes were followed:

- The baseline and midline scores for girls who completed both assessments were extracted.
- To ensure whether the data of the same girls were matched, we compared the unique numbers and the names of the girls in baseline and midline evaluation. The names that did not match exactly, were inspected to find different spellings or using a second name. Thereafter we send the names of the girls that did not match for the project to confirm whether it was the same girl or a different girl. After this process we were satisfied that we matched the baseline and midline data of the same girls. An effort to check if the girls' ages matched was not successful. While most girls increased in age, the average age of the girls did not increase with 2 years as expected. We learned that children do not have identity documents to verify dates of birth. They have an approximate idea of age (based on what they have been told - often in relation to some event in their village which was around the time of their birth). Age is therefore not accurately reported by the participants to be used as a way to link the samples.
- Difference scores between baseline and midline scores for each sub-test were calculated for each girl in the cohort.
- The average difference scores of project and control group girls were compared using t-test to determine the significance of differences between the groups.
- Total literacy and numeracy scores were calculated for seniors and juniors. To take the subtests where timing is involved into account, the scores were capped. The project gain and performance against targets were calculated. A regressions analysis was performed to determine significance of differences.
- An adjustment was made to account for the **intra-cluster correlations** (because girls were selected per school (cluster) and not at random). Intra-cluster correlations were calculated for each of the 30 schools in the sample, by using the intra-cluster variance and the variance across schools. The intra-cluster coefficients varied between 0.04 and 0.13 for project schools and 0.03 and 0.13 for control schools. This means that the intra-cluster correlation was low. About 10% of the responses within a school, at most, were similar. To compensate for the intra-cluster correlation in the analysis of data, the confidence level was adjusted for each group according to the calculations (Source: Twisk, Ross W.R., Applied multilevel Analysis). The confidence levels for groups were adjusted to: For target senior girls' EGMA $p<0.043$; for target senior girls' EGRA $p<0.046$. For junior girls' EGMA $p<0.045$; for junior girls' EGRA $p<0.047$. Despite the adjustment the statistical power was 100% for all groups.
- A regression analysis was done using the adjustment for each group and scale. The adjustment did not cause a significant change in the results. These results are reported.

As part of data analysis of the output data, frequencies were calculated and graphs were drawn for all variables. Scale scores were calculated and the Cronbach alpha calculated for each scale. Data of the

project and control schools were compared using two-sample t-tests (assuming equal variances) for scale scores.

A regression analysis was performed using all the scale scores of the girls (independent variables) and a combined score for learning (EGRA and EGMA) to determine which variables assessed in the midline evaluation related to change in learning. Variables with significant relationships were entered into a multiple linear regression analysis to determine predictors of change in girls' learning from baseline to midline.

Qualitative data was summarised during the group discussions in the form of notes. It was supplemented by information the facilitators subtracted from the tape recordings. The notes of the group discussions were translated into English for analysis. An LCDE staff member checked the accuracy of the translations. It is acknowledged that much data could have got lost in the process of writing notes and translations. Common themes were extracted in an iterative process using content analysis. Themes of different stakeholders were described separately and then used to validate and expand insight into quantitative data and indicators. A report on the qualitative findings was compiled for use of various intervention activities. A summary of the qualitative data is attached.

4.7 Ethical protocol

The project staff and EMET adhered to LCDE's **Child Protection Policy.** The Child Protection policy was revised to include a code of conduct. This covers recruitment and selection of personnel, education and training in child protection, management, behaviour protocols, communications about children, reporting and reaction protocols and ramification of misconduct. The Woreda supervisors are professionals employed by Government who have been cleared in terms of the MOE child protection policy. During the training for midline evaluation all data collectors were trained in ethical ways of doing research and how to be sensitive to vulnerable children. There were no situations where the supervisors as researchers were alone with the girls that could involve any risk to the girls. The research was conducted in a school context and the researchers worked in pairs during data collection which was often done outside in the open on the school grounds. Data collectors were also sensitized to problems children may experience that need referral.

The project involves under-aged and vulnerable children. Schools approved the project and informed the parents/caregivers about the school's participation in the project and the assessment of a cohort of girls at baseline. Parents could withdraw their children in baseline should they wish to do so (opt-out consent). Participation of girls in the assessment was voluntary. Girls were requested to provide assent whereby they agreed to participate in the assessment. The assent forms were explained in age appropriate language to girls in both cohorts. Parents consented that their children can participate in interviews but responses of the girls were confidential. The EMET team emphasised accountability of interviewers not to create risks for parents or girls during the training. All participants of the group discussions gave informed consent before the discussion was started.

The confidentiality of data was protected by not attaching personal details to the data. The names and personal information of the girls were stored separately. The physical surveys will be stored until the project is completed to allow the verification of the data. The electronic version of the data will be stored on a pass word protected computer dedicated to this project, as well as a database provided to GEC. After the project, data will be stored at LCDE's offices and by EMET for 5 years to allow the verification of data. The disposal of data will be negotiated with GEC.

4.8 Challenges in the evaluation process

1) Even though we had questions translated into Amharic and back translated into English by a professional, the translation of some of the questions caused a problem as they were not interpreted as originally planned. For example, “attendance” was translated with the Amharic equivalent of “attention”, which resulted in unintelligible answers. A questions on Gender Action plans (GAP) was changed into a question about the gender club. It that way we did not get all the information we wanted. The bulk of difficulties could be weeded out during training, but it is conceivable that some inconsistencies went undetected. An example of something that was corrected was the translation of “… [*Name of Girl*]’s school …” with the equivalent of “… the name of the school for girls …”

2) The project and control group were relatively similar at baseline. Learning outcomes were similar but the control group girls often had more positive attitudes towards girls’ education. The situation turned around in the midline evaluation. The control group girls evaluated relationships with parents and teachers extremely negative, while the project group evaluated it slightly less positive than at baseline. It may be a reaction of the control group that they feel excluded from the intervention and wanted to indicate their need to be included in the intervention.

3) The control group also received intervention by the Woreda Education authorities. The woreda gender officer worked with the teacher to advance girls’ education. It was part of the Educational policy to do so. This is the disadvantage of doing a project that is part of the educational policy – there will be intervention in the control areas as well.

4) The inconsistency and inaccuracy of the EMIS data created a serious problem for the evaluation team because it influences the outcome data. We cannot confirm that there were more enrolments, less drop outs and higher national Grade 8 examination results because of the inconsistency of official data we received.

4.9 Changes to longitudinal design

The high level of attrition especially in the control cohort resulted in 29% of the senior girls and 22% of the junior girls being replaced. There was no significant differences between the scale scores and EGRA/EGMA scores at midline of the cohort and the replacement girls. Attrition will therefore not influence the longitudinal evaluation design.

5 M&E Framework

Attach the latest version of your M&E Framework

6 Summary of Quantitative Data

Summaries are given per group

		Parameters – Results EGMA Junior	Source	Notes
Sample size requirements	1	Significance level (alpha)	*M&E Framework / Outcomes SS*	*0.05*
	2	Power (1 - beta)	*M&E Framework / Outcomes SS*	*0.8*
	3	Minimum detectable effect	*M&E Framework / Outcomes SS*	*1.735*
	4	Clustering applied	*M&E Framework*	***Yes***
	5	Assumed Intra-Cluster Correlation	*M&E Framework*	*0.015*
	6	Allocation ratio (between treatment and control group)	*M&E Framework*	*1 to 1*
	7	Minimum required sample size	*M&E Framework*	*663*
	8	Attrition buffer	*M&E Framework*	*n=43, 6.5%*
	9	Sample size (total)	*M&E Framework / Outcomes SS*	*750*
	10	Sample size in treatment group	*M&E Framework / Outcomes SS*	*375*
	11	Sample size in control group	*M&E Framework / Outcomes SS*	*375*
	12	Sampling clusters	*M&E Framework*	*School*
	13	Number of sampling clusters	*M&E Framework / Outcomes SS*	*30*
	14	Number of sampling clusters in treatment group	*M&E Framework / Outcomes SS*	*15*
	15	Number of sampling clusters in control group	*M&E Framework / Outcomes SS*	*15*
	16	Number of girls per sampling cluster	*M&E Framework / Outcomes SS*	*25*
Sample size ex-post	17	Sample size ex-post (total)	*Dataset*	*631*
	18	Sample size ex-post in treatment group	*Dataset*	*337*
	19	Sample size ex-post in control group	*Dataset*	*294*
	20	Number of sampling clusters ex-post	*Dataset / Outcomes SS*	*30*
	21	Number of girls who are substitution girls	*Dataset*	*Treatment: 39, Control 188*
Target	22	Standard deviation of all scores at baseline	*Dataset*	*Treatment: 20.83, Control: 21.91*
	23	Standard deviation of score changes for intervention group	*Dataset / Outcomes SS*	*19.04*
	24	Standard deviation of score changes for control group	*Dataset / Outcomes SS*	*18.09*
	25	Target	*Outcomes spreadsheet*	*Junior 5.37* *Senior 7.53*
Results	26	Achievement (beta)	*Outcomes spreadsheet*	*8.97*
	27	Achievement in SD terms	*Dataset*	*15.92*
	28	Result	*Outcomes spreadsheet*	*8.97*
	29	p-value of simple OLS	*statistical software*	*0.000*
	30	p-value of simple OLS with clustered errors	*statistical software*	*N/A*
	31	p-value of OLS with additional controls and clustered errors	*statistical software*	*N/A*

ample size requirements	1	Significance level (alpha)	*M&E Framework / Outcomes SS*	*0.05*
	2	Power (1 - beta)	*M&E Framework / Outcomes SS*	*1.0*
	3	Minimum detectable effect	*M&E Framework / Outcomes SS*	*1.735*
	4	Clustering applied	*M&E Framework*	***Yes***

		EGMA senior		
	5	Assumed Intra-Cluster Correlation	*M&E Framework*	*0.015*
	6	Allocation ratio (between treatment and control group)	*M&E Framework*	*1 to 1*
	7	Minimum required sample size	*M&E Framework*	*663*
	8	Attrition buffer	*M&E Framework*	*n=43, 6.5%*
	9	Sample size (total)	*M&E Framework / Outcomes SS*	*750*
	10	Sample size in treatment group	*M&E Framework / Outcomes SS*	*375*
	11	Sample size in control group	*M&E Framework / Outcomes SS*	*375*
	12	Sampling clusters	*M&E Framework*	*School*
	13	Number of sampling clusters	*M&E Framework / Outcomes SS*	*30*
	14	Number of sampling clusters in treatment group	*M&E Framework / Outcomes SS*	*15*
	15	Number of sampling clusters in control group	*M&E Framework / Outcomes SS*	*15*
	16	Number of girls per sampling cluster	*M&E Framework / Outcomes SS*	*25*
Sample size ex-post	**17**	Sample size ex-post (total)	*Dataset*	*588*
	18	Sample size ex-post in treatment group	*Dataset*	*320*
	19	Sample size ex-post in control group	*Dataset*	*268*
	20	Number of sampling clusters ex-post	*Dataset / Outcomes SS*	*30*
	21	Number of girls who are substitution girls	*Dataset*	*Treatment: 93, Control 188*
Target	**22**	Standard deviation of all scores at baseline	*Dataset*	*Treatment: 24.22 Control: 22.66*
	23	Standard deviation of score changes for intervention group	*Dataset / Outcomes SS*	*31.3*
	24	Standard deviation of score changes for control group	*Dataset / Outcomes SS*	*23.1*
	25	Target	*Outcomes spreadsheet*	*7.53 (senior EGMA)*
Results	**26**	Achievement (beta)	*Outcomes spreadsheet*	*8.82*
	27	Achievement in SD terms	*Dataset*	
	28	Result	*Outcomes spreadsheet*	*8.82*
	29	p-value of simple OLS	*statistical software*	*0.000*
	30	p-value of simple OLS with clustered errors	*statistical software*	*N/A*
	31	p-value of OLS with additional controls and clustered errors	*statistical software*	*N/A*

		Parameters – Results: EGRA junior	Source	Notes

Sample size requirements	1	Significance level (alpha)	*M&E Framework / Outcomes SS*	*0.05*
	2	Power (1 - beta)	*M&E Framework / Outcomes SS*	*0.8*
	3	Minimum detectable effect	*M&E Framework / Outcomes SS*	*1.735*
	4	Clustering applied	*M&E Framework*	***Yes***
	5	Assumed Intra-Cluster Correlation	*M&E Framework*	*0.015*
	6	Allocation ratio (between treatment and control group)	*M&E Framework*	*1 to 1*
	7	Minimum required sample size	*M&E Framework*	*663*
	8	Attrition buffer	*M&E Framework*	*n=43, 6.5%*
	9	Sample size (total)	*M&E Framework / Outcomes SS*	*750*
	10	Sample size in treatment group	*M&E Framework / Outcomes SS*	*375*
	11	Sample size in control group	*M&E Framework / Outcomes SS*	*375*
	12	Sampling clusters	*M&E Framework*	*School*
	13	Number of sampling clusters	*M&E Framework / Outcomes SS*	*30*
	14	Number of sampling clusters in treatment group	*M&E Framework / Outcomes SS*	*15*
	15	Number of sampling clusters in control group	*M&E Framework / Outcomes SS*	*15*
	16	Number of girls per sampling cluster	*M&E Framework / Outcomes SS*	*25*
Sample size ex-post	17	Sample size ex-post (total)	*Dataset*	*631*
	18	Sample size ex-post in treatment group	*Dataset*	*337*
	19	Sample size ex-post in control group	*Dataset*	*294*
	20	Number of sampling clusters ex-post	*Dataset / Outcomes SS*	*30*
	21	Number of girls who are substitution girls	*Dataset*	*Treatment: 39, Control 188*
Target	22	Standard deviation of all scores at baseline	*Dataset*	*Treatment: 21.5, Control: 13.9*
	23	Standard deviation of score changes for intervention group	*Dataset / Outcomes SS*	*21.5*
	24	Standard deviation of score changes for control group	*Dataset / Outcomes SS*	*13.9*
	25	Target	*Outcomes spreadsheet*	*2.6 (junior), 11.23 (senior)*
Results	26	Achievement (beta)	*Outcomes spreadsheet*	*7.55 (junior)*
	27	Achievement in SD terms	*Dataset*	*7.55*
	28	Result	*Outcomes spreadsheet*	*9.46*
	29	p-value of simple OLS	*statistical software*	*0.000*
	30	p-value of simple OLS with clustered errors	*statistical software*	*N/A*
	31	p-value of OLS with additional controls and clustered errors	*statistical software*	*N/A*

		Parameters – Results EGRA senior	Source	Notes
Sample size requirements	1	Significance level (alpha)	*M&E Framework / Outcomes SS*	*0.05*
	2	Power (1 - beta)	*M&E Framework / Outcomes SS*	*0.8*
	3	Minimum detectable effect	*M&E Framework / Outcomes SS*	*1.735*
	4	Clustering applied	*M&E Framework*	***Yes***
	5	Assumed Intra-Cluster Correlation	*M&E Framework*	*0.015*
	6	Allocation ratio (between treatment and control group)	*M&E Framework*	*1 to 1*
	7	Minimum required sample size	*M&E Framework*	*663*
	8	Attrition buffer	*M&E Framework*	*n=43, 6.5%*
	9	Sample size (total)	*M&E Framework / Outcomes SS*	*750*
	10	Sample size in treatment group	*M&E Framework / Outcomes SS*	*375*
	11	Sample size in control group	*M&E Framework / Outcomes SS*	*375*
	12	Sampling clusters	*M&E Framework*	*School*
	13	Number of sampling clusters	*M&E Framework / Outcomes SS*	*30*
	14	Number of sampling clusters in treatment group	*M&E Framework / Outcomes SS*	*15*
	15	Number of sampling clusters in control group	*M&E Framework / Outcomes SS*	*15*
	16	Number of girls per sampling cluster	*M&E Framework / Outcomes SS*	*25*
Sample size ex-post	17	Sample size ex-post (total)	*Dataset*	*588*
	18	Sample size ex-post in treatment group	*Dataset*	*320*
	19	Sample size ex-post in control group	*Dataset*	*268*
	20	Number of sampling clusters ex-post	*Dataset / Outcomes SS*	*30*
	21	Number of girls who are substitution girls	*Dataset*	*Treatment: 93, Control 188*
Target	22	Standard deviation of all scores at baseline	*Dataset*	*Treatment: 36.9, Control: 22.21*
	23	Standard deviation of score changes for intervention group	*Dataset / Outcomes SS*	*36.95*
	24	Standard deviation of score changes for control group	*Dataset / Outcomes SS*	*22.21*
	25	Target	*Outcomes spreadsheet*	*11.23 (senior)*
Results	26	Achievement (beta)	*Outcomes spreadsheet*	*11.36 (Senior girls)*
	27	Achievement in SD terms	*Dataset*	
	28	Result	*Outcomes spreadsheet*	
	29	p-value of simple OLS	*statistical software*	*0.000*
	30	p-value of simple OLS with clustered errors	*statistical software*	*N/A*
	31	p-value of OLS with additional controls and clustered errors	*statistical software*	*N/A*

7 Sustainability: project continuation

How will main project activities continue after project phase-out?

Main project activities	Responsibility for continuity	Plans to ensure continuity
Gender Audit & SPAM	Woreda experts, Cluster supervisors, head teachers, SIC, PTA	Data collection tools; all WEO staff and school managers trained in data collection and facilitation of SPAM
PTA training	ZED	Manual
GEAC training & campaigns	GEAC, SIC, PTA, ETB	Manual
Local role models	WEO, school directors, supervisors	Selection criteria for local female role models and guidance for role models in schools
HIV/AIDS training	HAAP, ZEB HIV unit (although please note very limited budget)	We will liaise with the WOlaita HAP and ZEB as the project progresses to ascertain their capacity (human and financial) to continue training after project phase-out
Director leadership training	ZEB quality assurance unit	Manual exists and ZEB staff have been trained in facilitating gender mainstreaming for school leaders training; however very limited budget exists to continue training post-project
SIC training	ZEB teaching learning & assessment unit	Manual exists and ZEB staff have been trained in facilitating SIC training; however very limited budget exists to continue training post-project
Strengthening girls' clubs	Girls' Club Coordinator	Manual exists and skills / knowledge levels in school are now greatly increased so we are confident that the clubs will continue with their own initiative
Sanitary provision	REB; local seamstresses, girls' clubs	It is possible the REB may be able to source funding to continue sanitary provision (they have already attracted additional funds from UNICEF to support an additional 11,000 girls outside of our project. This input will be difficult to continue

		due to the cost implications but all project stakeholders are aware of the huge significance sanitary pads have. Some school s have set up 'Bereket banks' where staff, visitors, former pupils, parent etc can donate to support needy girls with pads. Also, there is scope to see if local seamstresses can make the pads locally of even if the girls' clubs can start to sew them.
Tutorial classes	Deputy head teachers, head teachers, cluster supervisors, subject teachers	Teachers should continue the tutorials to a certain extent as additional tuition is part of their job description. The current tutors have been trained so the skills exist and the tutorial manuals are on file. Monitoring systems (via head teachers, deputies and supervisors) are also in place. The challenge will be whether teachers are still willing to undertake the work once the incentives available through the project phase-out
GRP	MOE	The MOE has included GRP in the national girls education strategy but currently there are limited funds even to train at pre-service level, let alone to support teachers in their jobs to enhance their gender friendliness. This is an area we are keen to follow up in our next phase of work in girls' education, working directly with the federal MOE gender unit.
Gender mainstreaming for WEO officials	REB, ZEB	Manual exists and skills / knowledge levels in project woredas are now greatly increased. We hope that the zone and regional bureaus will be able to continue to deliver the training, although as ever budget shortages will be a critical issue
Supervisor & gender officer capacity-building	REB / ZEB / supervisors	Manual exists and skills / knowledge levels in project clusters are now greatly increased. We hope that the zone and regional bureaus will be able to continue to deliver the training, although as ever budget shortages will be a critical issue. At the least, we will work with the

		woredas through project closure / in the next phase of our programming to ensure that mechanisms for peer support are in place.
One education conference	ZEB	The conference will still take place as this is part of the MOE cycle of information-sharing. Skills have been built in developing case studies / hosting events. We are confident that even without additional budget the zone will maintain a significant focus on girls' education since all stakeholders are now very much aware of the particular challenges girls face.

8 Independent Evaluator Declaration

Name of Project: Improved Girls Learning in rural Wolaita Zone

Name of Independent Evaluator: EMET: M Visser, M Jansen van Rensburg, W Haupt

Contact Information for Independent Evaluator: maretha.visser@up.ac.za

Names of all members of the evaluation team:M Visser, M Jansen van Rensburg, W Haupt

Maretha Visser (Name) hereby affirms that _EMET_ (Company) has no previous affiliation or relationship with the _Improved girls learnng in rural Wolaita Zone __ (Name of project), Girls' Education Challenge Fund, PwC, Coffey, DFID or the stakeholders interviewed as a part of this evaluation.

Maretha Visser (Name) certify that the independent evaluation has been conducted in line with the Terms of Reference and other requirements received.

Specifically:

3 All of the quantitative data was collected independently ((Initials: _MV___)

4 All data analysis was conducted independently and provides a fair and consistent representation of progress (Initials: _MV___)

5 Data quality assurance and verification mechanisms agreed in the terms of reference with the project have been soundly followed MV

6 The recipient has not fundamentally altered or misrepresented the nature of the analysis originally provided by __EMET____(Company) (Initials: _MV___)

7 All Evaluation Manager (EM) guidance on data cleaning has been followed (Initials: MV__)

8 All data has been uploaded to the EM's SharePoint system in the instructed shape and format ((Initials: _in progress___)

9 All child protection protocols and guidance have been followed ((initials: _MV___)

10 Data has been anonymised, treated confidentially and stored safely, in line with the GEC data protection and ethics protocols (Initials: _MV___)

__MJ Visser_____

(Name)

_EMET_____

(Company)

_31 January 2015_____

(Date)