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IGATE Midline Evaluation Report

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for

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Version 2

**Abbreviations**

BEAM Basic Education Assistance Module

BEEP Bicycle Education Empowerment Programme

CPC Child Protection Committee

CSGE Community in Support of Girls’ Education

DEO District Education Officer

DFID Department for International Development

DiD difference-in-differences

EGRA Early Grade Reading Assessment

EGMA Early Grade Math Assessment

EWF Emthonjeni Women’s Forum

EFZ Evangelical Fellowship of Zimbabwe

FGD Focus Group Discussion

FT Full-Treatment

GEC Girls’ Education Challenge

GBV gender-based violence

HH household

IGA Income Generating Activities

IGATE Improving Girls’ Access through Transforming Education

ITT Intent-to-Treat

KII Key Informant Interview

M&E Monitoring and Evaluation

MG Mothers Groups

MoP&SE Ministry of Primary and Secondary Education

MoWAGD Ministry of Women’s Affairs, Gender and Community Development

MSC Most Significant Change

MWAI Miske Witt and Associates Inc.

NGO Non-government organisation

PW Power Within Club

RDC Rural Development Council

RUMPS Reusable Menstrual Pads

SDC School Development Committee

SIG School Improvement Grant

SNV IGATE partner from Netherlands

UDACIZA Union for the Development of the Apostolic Church in Zimbabwe Africa

VSL Village Savings and Loans

WASH Water Sanitation and Hygiene

WBR World Bicycle Relief

WV World Vision

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Executive Summary

# 1 Introduction

1.1 Background to project

1.1.1 Operational context of the project

Two elements are foundational to IGATE’s operational context. First, the Ministry of Primary and Secondary Education (MoP&SE) has the primary mandate to provide education in Zimbabwe. Additional support to schools (e.g., from NGO projects) can be given only outside the classroom and only after school hours. Second, Zimbabwe has been suffering not only through a deteriorating economic situation but also through a prolonged drought that has worsened significantly since the start of IGATE in 2013. The economic situation was aggravated by the prolonged drought in 2015, the effects of which have intensified in 2016. According to USAID’s Famine Early Warning Systems Network[[1]](#footnote-1), Zimbabwe currently has the highest national cereal deficit in the region. IGATE’s districts are currently classified as being under stress or in a crisis situation; predictions for the first quarter of 2016 indicate that this status will persist and may worsen in the absence of humanitarian assistance. Based on World Vision’s (WV) 3-scale disaster classification system, Zimbabwe moved from a category II rating in 2013 to category III, the highest rating, in month, 2015.

1.1.2 Project theory of change and assumptions

IGATE’s holistic theory of change is based on the contention that three elements are central to changing knowledge, attitudes, and behaviors related to girls’ education: 1) enabling key stakeholders to acquire knowledge, 2) strengthening existing and creating new community-based systems, and 3) building the capacity of critical actors and structures that eventually change realities on the ground. IGATE’s comprehensive and collaborative theory of change is built on a lateral, multi-layered intervention approach using household/community- and school-based programming to support girls and their education. IGATE works directly with local government ministries, parents, religious leaders, traditional leaders, school leaders, and the girls themselves to increase knowledge and to promote changes in traditional perceptions and practices regarding gender to enable girls to attend school consistently and have equal conditions to succeed academically. Enabling these key stakeholders to become agents of change is designed to increase interventions’ sustainability and impact.

Three models were added to the six proposed IGATE models to address barriers identified at baseline by the Indigenous Knowledge Systems Study, and the Broad Gender Analysis. The Male Champions model was added to ensure that men actively support girls’ education and that they share the same understanding of the programme benefits as do their female counterparts. The Bicycle Education Empowerment Programme (BEEP) was added to respond to the baseline finding on distance as a barrier to access and persistence. In response to the need for an intervention focused on improving students’ literacy and numeracy skills, the third model added was Happy Readers. This intervention trains teachers on reading and numeracy, and provides schools with reading primers (i.e., books for children learning to read). These changes to IGATE were made in response to community needs, to address barriers to girls’ education, and to sustain programmatic benefits (such as advocacy, social accountability, awareness and attitudinal changes, etc.) over the long term.

1.1.3 Summary of interventions

IGATE consists of nine interventions:

1. **Village Savings and Loans (VSL)** is a CARE model that involves training men and women on group savings, generating capital for small businesses and creating a safety net for participants. Groups receive training on developing small businesses, budgeting, and managing finances. The primary purpose of the intervention is to raise funds for girls’ school fees and other school-related costs (such as uniforms and books), and to improve household living standards, including generating enough income for food and other essential items.
2. **Mothers Groups (MG)** is a CARE model. Women in the school community are trained on the importance of girls’ education and how they can mentor, guide, and counsel girls and other parents on education, the importance of regular attendance, gender-based violence (GBV), and hygiene and menstruation. Influential men (traditional and religious leaders) also take part in Mothers’ Groups. MGs are composed of VSL group members. MG members work in synergy with the matrons who supervise Power Within clubs.
3. **Power Within Club (PW)**, a CARE model, is a school-based girls’ club run by a teacher matron. The clubs’ purpose is to create an enabling environment to support girls in the completion of primary school, and to foster girls’ leadership skills and their knowledge and understanding of girls’ rights. The PW matron is supported by the MG. Each PW club has a maximum of 50 student members.
4. **School Development Committee (SDC)** is a formal structure linking schools and communities in Zimbabwe. Using a training model developed by SNV Netherlands, the project worked through the MoP&SE to train school officials involved in SDCs on business and management skills, and on how to create and foster gender-friendly environments. SDC members also received Water, Sanitation and Hygiene (WASH) training, including training for MGs on how to make Reusable Menstrual Pads (RUMPS).
5. **Community in Support of Girls’ Education (CSGE),** is a World Vision community advocacy and social score carding model, consists of training communities how to score their school against the MoP&SE’s mandated standards for educational provision (particularly on policies of specific relevance for girls’ education), how to develop an action plan based on their results, and how to lobby the government for improved service provision. CSGE is implemented by Government of Zimbabwe employees, with training and support from World Vision.
6. **Bicycle Education Empowerment Programme (BEEP)** is a World Bicycle Relief (WBR) model that establishes and supports community-based programmes to provide bicycles to students living long distances from school, to minimize the barrier of distance to enrolment and persistence.
7. **Channels of Hope** is a World Vision model. In partnership with the Evangelical Fellowship of Zimbabwe (EFZ) and the Union for the Development of the Apostolic Church in Zimbabwe Africa (UDACIZA), Apostolic and Evangelical faith leaders and elders are trained on the Biblical basis for gender equality. The model emphasises financial power, health, decision-making, education, and sexual and reproductive decisions.
8. **Male Champions** involves IGATE, in partnership with Emthonjeni Women’s Forum (EWF), training men to lead the process of bringing about gender-based, community-level changes to support girls’ education. Male Champions collaborates with MGs, SDCs, and other bodies.
9. **Happy Readers** is a local organisation that trains teachers to develop students’ reading skills through a tailored teaching plan that includes using books provided by Happy Readers. These books are in English and two local languages, Shona and Ndebele.

1.2 M&E approach and research methods

1.2.1 Evaluation approach

The midline evaluation used a randomized control trial design complemented by a substantial qualitative component that was used for the baseline study and modified for the midline evaluation. The full methodological approach is described in Annex 4. The experimental design allows for the use of difference-in-difference (DiD) estimation to analyze the impact of the programme on literacy and numeracy outcomes.

The sampling strategy employed methods to track girls from the baseline study for the longitudinal component of the study and boost the sample size by including new girls in the midline study. Both groups will be tracked longitudinally for the endline study. Eighty-five (85) sample points (i.e., school catchment areas) were assessed during the baseline, targeting specifically a list of approximately 2,900 girls identified at baseline (cohort tracked) in 10 districts. Roughly two-thirds of the girls from these sample points (specifically 2,935 girls) contribute to the longitudinal approach of the midline evaluation for measuring changes and effects among target groups from the baseline stage and will be included in the endline study. As WV recommended, nearly 1,000 girls were included to address the attrition and migration of some of the girls captured at baseline. An addition of 31% to the sample at midline was also included to boost the effective sample size for the endline evaluation. Thus, the midline evaluation targeted approximately 3,800 girls.[[2]](#footnote-2) These girls were targeted with specific benchmarks in mind: conducting at least 39 learning assessments in each of the sample points and randomly selecting girls up to Form 3 for the different grade levels.

Quantitative tools used included household-based tools (household questionnaires, including the first informant, caregiver, and girl interviews), school-based tools (head teacher and teacher questionnaires), and learning assessments (EGRA/EGMA).[[3]](#footnote-3) At baseline, the survey was implemented using paper copies and later entered into a database; at midline, an electronic version of instruments was used, with the Tangerine platform, developed by Research Triangle Institute. Tablets were used to reduce data collection time, minimize cost, and improve accuracy.

Qualitative tools used for this evaluation were Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), and Most Significant Change (MSC) stories. The sampling strategy for qualitative data collection included a detailed selection criteria and process for each tool. In some cases, purposive sampling is used while in other cases random sampling is used (see Annex 4). In each of nine districts, 13 qualitative data collection activities were conducted: 8 KIIs, 3 FGDs, and 2 MSC stories. In the tenth district, 12 qualitative data collection activities were conducted as only two FGD were conducted. KIIs were also conducted with three IGATE project staff (one national-, one regional-, and one district-level project staff) using purposive sampling.

1.2.2 Limitations of the evaluation approach

The single most significant limitation for this evaluation was inadequate amount of time available to prepare for data collection for the international implementing partner, Miske Witt and Associates Inc. (MWAI), and the field-based partner, Target Research. An evaluation of this complexity requires that substantial time be allocated for planning and preparation. Timing was constrained by the fact that midline data collection had to be completed before the school term ended in August 2015.

Due to the compressed amount of time, major data collection preparation activities that should be undertaken sequentially took place concurrently. Data collection tools (seven qualitative and seven survey tools) were developed or revised (including equating the EGRA comprehension paragraphs), and the surveys were uploaded onto the tablets (the household survey had to be uploaded twice, since final survey revisions were received from Coffey after the survey had already been uploaded); logistical arrangements were made for fieldwork (65 enumerators were organised into 10 teams); and enumerators were trained on all instruments. As a result of this, the spot check of attendance data, which was intended to follow up on attendance monitoring, did not make it into the data collection. (The final monitoring round of attendance also had not been collected, so attendance findings will need to be a focus of the endline data collection.)

There was insufficient time to train enumerators to adequately familiarise themselves with or practice using all the tools. Over three days, 27 enumerators were trained on the qualitative tools (seven types of KIIs, three types FGD, and MSC stories). Then 65 enumerators were trained over ten days on the quantitative tools (seven survey tools), including one day for pilot testing.

While MWAI and Target Research faced many challenges in carrying out the work effectively, all team members of both evaluation partners, as well as World Vision and their partner colleagues, were very committed to overcoming the challenges. All involved worked collaboratively and for as many hours and days as was required to ensure that the data collection was conducted as efficiently and effectively as possible, despite the constraints. For example, 12 days (six days per week) were initially allocated for enumerator training. Target Research was able to add one additional day for quantitative training.

There were several other challenges that contribute to the limitations. In both the baseline and midline data collection, several key variables had large amounts of missing data. At the baseline, this is due to issues with the application of the questionnaires, lack of answers and issues with data entry. Due to the Coffey-initiated changes in instruments made for IGATE interventions overall, some variables were not included in the midline.

Originally, there were 53 treatment schools. However, due to the phased implementation of the interventions and other operational constraints (e.g., the need to add two replacement districts, as described in the baseline report), 11 of these schools had not received least two active IGATE interventions (MG, PW, or VSL) for more than six months prior to the midline data collection. In this report we present results that use both the intention-to-treat (the original 53 treatment schools), as well as a narrowed definition of treatment that only considers the 42 schools with full treatment as of the time of midline data collection.[[4]](#footnote-4) The results from the narrowed definition of treatment exclude girls from the 11 partially-treated schools. Additionally, we examine the effects of each individual treatment included in the full-treatment definition. A treatment school is classified as full-treatment if the school had received this particular intervention for more than six months prior to the midline data collection. The exposure rates of schools sampled in the midline by treatment group in each district are detailed in Table 1.

Table 1: Treatment exposure rates of schools by district

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Full Treatmenta | | |  | VSL Treatmenta | | |  | MG Treatmenta | | |  | PW Treatmenta | | |
| District | Total |  | (1) | (2) | (3) |  | (1) | (2) | (3) |  | (1) | (2) | (3) |  | (1) | (2) | (3) |
| Beitbridge | 5 |  | 1 | 3 | 1 |  | 1 | 4 |  |  | 1 | 2 | 2 |  | 1 | 3 | 1 |
| Binga | 6 |  | 2 | 3 | 1 |  | 2 | 3 | 1 |  | 2 | 3 | 1 |  | 2 | 3 | 1 |
| Chivi | 10 |  | 3 | 5 | 2 |  | 3 | 5 | 2 |  | 3 | 5 | 2 |  | 3 |  | 7 |
| Gokwe North | 5 |  | 3 | 2 |  |  | 3 | 2 |  |  | 3 | 2 |  |  | 3 | 2 |  |
| Gokwe South | 15 |  | 5 | 9 | 1 |  | 5 | 9 | 1 |  | 5 | 8 | 2 |  | 5 | 10 |  |
| Insiza | 10 |  | 4 | 5 | 1 |  | 4 | 5 | 1 |  | 4 | 3 | 3 |  | 4 | 6 |  |
| Lupane | 9 |  | 4 | 4 | 1 |  | 4 | 4 | 1 |  | 4 | 4 | 1 |  | 4 | 4 | 1 |
| Mangwe | 4 |  | 2 | 2 |  |  | 2 | 2 |  |  | 2 | 2 |  |  | 2 | 2 |  |
| Mberengegwa | 15 |  | 6 | 5 | 4 |  | 6 | 5 | 4 |  | 6 | 4 | 5 |  | 6 | 9 |  |
| Nkayi | 6 |  | 2 | 4 |  |  | 2 | 4 |  |  | 2 | 4 |  |  | 2 | 4 |  |
| Total | 85 |  | 32 | 42 | 11 |  | 32 | 43 | 10 |  | 32 | 37 | 16 |  | 32 | 43 | 10 |
| Note: (1) Control Group; (2) Full-Treatment Group; (3) Partial-Treatment Group | | | | | | | | | | | | | | | | | |
| a Intention-to-treat can be seen by adding the full-treatment (2) and partial-treatment (3) group numbers together. | | | | | | | | | | | | | | | | | |

Use of the full-treatment definition may affect the original balancing of the treatment and control groups, and may lead to overestimation of the results. Unobserved school characteristics that affect participation in the intervention (and operational efficiency of schools) are also likely to be correlated with learning outcomes. For example, communities with infrastructure in place that creates a more favorable environment for the intervention implementation, may receive the intervention before other schools. This same infrastructure may support more favorable learning environments than other schools as well. The positive correlation between the coefficient and the error term (unobserved characteristics) could lead to an overestimation of the effect of treatment.

**Note from the IGATE Project**

Due to the complexity of the intervention and amount of resources, human and financial, needed for its roll-out in an extensive coverage area, IGATE was implemented using a phased approach, as clearly expressed in our quarterly reports. As a result, 11 sample schools had not been reached by all foundational models (VSL, MG, PW) or the models had only recently been introduced to the schools, without having been fully rolled out. It is our perspective that the evaluation should focus on understanding the effects of the IGATE treatment on students, and therefore assessing its potential value in boosting learning outcomes and attendance. The 11 schools that had not been fully exposed to the treatment at the midline will also be included in the endline evaluation, taking into account the exposure time as a key variable in the analysis.

In the present report, it is stated that by focusing on treated schools only, the results may have been overestimated. This statement is questioned by the IGATE team, since there is no evidence that the treatment schools included have any advantages in terms of resources or access that may have led to better results; all IGATE schools were selected based on their official classification as disadvantaged schools with poor infrastructure and limited resources. This is corroborated by the patterns observed in section 2.3.2, noting that the results of the ITT and Full Treatment analyses are only slightly different. Furthermore, the reduction in the sample is likely to have led to an underestimation of IGATE’s results, limiting our ability to detect existing effects due to the smaller number of respondents.

All definitions of treatment used in this report are program-based rather than self-identified by participants. The program found that some participants in KIIs and FGDs may have had difficulty identifying which interventions were being implemented by which organisations and/or which projects, due to the large number of development projects in some communities. For example, a community leader in Mberengwa remarked “there were quite a number of interventions in this village but it’s difficult to know exactly the ones which were done by World Vision.” Other participants mentioned SNV activities related to SDC but not in relation to IGATE. (SNV was well-known in the districts prior to IGATE.) Some people may have failed to discuss some activities and their impact as they may not have associated them with the IGATE project. (IGATE interventions with a high profile at community-level are VSL, MG, PW, and BEEP.)

Other limitations during data collection included major inconsistencies in the cohort girls’ list(s), which caused problems throughout the fieldwork period. Multiple cohort lists with different sampling point (SP) numbers were being used in some of the sampling points. As a result, MWAI was unable to summarize data by SP each week for Target Research, and queries (e.g., those related to data cleaning) could not be checked and addressed while the teams were in the field. This situation caused confusion and delays in the fieldwork, and issues relating to the cohort girls’ list had to be resolved by WV and MWAI on a case-by-case basis as they arose. These inconsistencies later led to time delays in data cleaning and merging.

With regard to the logistics of data collection, there were challenges in the sampling points’ remoteness, compounded by several other factors including the distances between IGATE districts (which is in some cases vast), a very limited budget to cover the costs (number of enumerators, vehicles, tablets, etc.), and limits in the time participants were willing or able to complete surveys and/or participate in FGDs and KIIs. Also the timing of data collection, at the end of the third school term, was problematic because schools schedule extracurricular activities, such as inter-district and provincial sports days, and exams towards the end of a term. As a result, enumerators had to go back to schools sometimes two or three times as teachers and heads were unavailable.

To overcome limitations, Target Research planned carefully, and closely supervised and monitored fieldwork. MWAI took into consideration Target Research’s feedback on the considerable time it took to implement baseline tools, and adjusted midline tools accordingly.

1.2.3 Monitoring approach

Project results and outputs have been monitored monthly throughout the project to date. The project has 13 full-time, field-based M&E staff (one M&E facilitator in each of 10 districts, one database officer, one M&E officer, and one M&E coordinator); a grants M&E manager and UK-based senior impact adviser from the lead agency as well as five M&E staff from IGATE partners (two from CARE and one from SNV, UDACIZA, and WBR).

District-level M&E facilitators use various model-specific tools to collect and consolidate data for all schools in the district. Monitoring tools included 1) Village Savings Household Survey, 2) Functionality of Groups Tool, 3) MG Monitoring, 4) Attendance Spot Check monitoring, and 5) Engagement and Influence Matrix. M&E facilitators and education project facilitators work collaboratively to monitor the establishment of groups and to track milestones.

District-level M&E facilitators send consolidated data to the national office where all the information is aggregated using the IGATE Management Information System/Database. Only data that can be verified (using registers for groups, participant lists for training) is captured in the system. Monthly reports are presented internally and then shared quarterly with partners and the fund manager. A similar process also happens with partners, with quarterly verification and validation to ensure that numbers/information in final reports are consistent with that of partners and field staff.

The project also collects qualitative information through case studies, most significant change stories, and media monitoring to profile the impact and results of the project. Media monitoring is used to track indicators such as policy changes in education, and the extent of GBV, as it is difficult to access this information through routine monitoring.

The overall monitoring approach has not changed over time. IGATE has continued to strengthen monitoring tools, and to review processes and strategies for data collection in light of limited resources (one M&E person per district) and lack of transport (one vehicle per district for implementation and monitoring of an average of 30 to 50 schools).

# 2 Key Findings

2.1 Introduction

Before presenting the key findings, it is important to understand several contextual elements that affect the key findings: who comprises the marginalized target groups; the timeline of each intervention’s implementation; and who implements various interventions.

IGATE implementation is around vulnerable schools classified as P3 and S3 categories of schools, implying that the communities serviced by the schools are the lowest in terms of national wealth ranking. National assessments were used to select districts for implementation (e.g., ZimVAC 2012). The selected districts were among the districts with high school dropout rates (37%). Marginalized communities are defined as communities with high chances of school dropouts. Midline findings show that girls from poor households (quintile disaggregation) attend more than those coming from better off households.

With respect to the implementation timeline, the first step has been to conduct meetings to introduce the intervention to the key stakeholders, starting with the highest level (MoP&SE) and then with the community. As for implementation, not all interventions have been implemented at the same time in every district. As noted earlier, IGATE began with six proposed models of intervention and then another three models were added, to respond more effectively to findings from the baseline study. At the time of the midline evaluation, five of the six originally proposed models were being implemented (CSGE, MG, PW, SDC, and VSL) as was one of the newly-added models (BEEP). However, there are no key qualitative findings regarding the CSGE since phase 2, which occurs at the community level, had yet to be implemented (only District Education Officers mentioned CSGE). Findings regarding the impact of CSGE, as well as the other three interventions that had yet to be fully implemented down to the community-level at the time of this evaluation (Channels of Hope, Male Champions, and Happy Readers), will need to be collected at endline.

A timeline of implementation of the interventions is as follows:

|  |  |
| --- | --- |
| August/September 2013 | * **VSL** and **MG** implementation started. |
| September/October 2013 | * **PW** started in alignment with the third term of the national school calendar when clubs are run. |
| January 2014 | * **SDC** training of school officials began. This training was delayed due to issues with obtaining MoP&SE approval of manuals. |
| Early 2014 | * **CSGE** phase 1 began. (Phase 1 consisted of sensitizing national and provincial MoP&SE representatives. Phase 2 community-level activities had yet to be implemented at the time of the midline evaluation data collection.) |
| February 2014 | * **Channels of Hope** Training of trainers was conducted in February 2014 followed by community sensitization (April 2014) and implementation (June 2014). The delay in implementation was due to administration issues (late transfer of payment). |
| June/July 2014 | * **BEEP** was first implemented in Binga, one of the 10 IGATE districts. WBR/IGATE delivered bicycles to Binga in September 2014. (IGATE chose Binga to be the first district to implement BEEP due to its high level of girls’ vulnerability with very long distances between schools and homes). |
| Added April 2015 | * **Male Champions** had been introduced to key stakeholders by midline data collection but it had not yet been implemented. |
| Added April 2015 | * **Happy Readers** had been introduced to key stakeholders by midline data collection but it had not yet been implemented due to delays related to budget approval, completing a Memorandum of Understanding and a late transfer of payment. (Activities began in June 2015 with first trainings conducted and books distributed in July/August 2015.) |

In regards to who is responsible for implementing various interventions, it became apparent during data collection that participants were able to identify and discuss the impact of some interventions (namely BEEP, MG, PW, and VSL) as being part of the IGATE project. The common factor in these four interventions is that they involve training either community members (BEEP, MG, and VSL) or teachers (PW) who then are responsible for implementing activities. Through this process, the wider community becomes aware of the “IGATE project”.

However, for the SDC intervention, IGATE trains school officials using the SNV model and then depends on those school officials to implement activities. Therefore when participants are asked questions, particularly open-ended questions in KIIs or FGDs, on the impact of IGATE activities, it would be very difficult, if not impossible, for them to identify and discuss school officials’ IGATE-fostered activities. Thus, as was noted above, in a very few cases during KIIs or FGDs, participants mentioned SDC in relation to SNV but not in relation to IGATE.

Since project interventions did not start at the same time across schools, some treatment schools had not had sufficient exposure to interventions to show treatment effects at the time of the midline evaluation. As a result, it was determined that the full-treatment group would include only the schools, households, and girls located in communities with exposure to at least two active IGATE interventions (MG, PW, or VSL) for six months or longer. Schools originally assigned as treatment schools which did not meet this criterion were designated as partial-treatment schools. The midline analysis in this report presents results using both the original treatment (intent-to-treat [ITT]) and fully-treated (FT) designation for comparative purposes. The original designation of treatment (ITT) is used throughout the outcomes spreadsheet.

In the full sample of surveyed girls, 1,927 girls were tracked for both the baseline and midline assessments; 1,008 girls were only tracked for the baseline assessment; and 1,884 girls were only tracked for the midline assessment. Table 2 details the exposure rates of girls by these three assessment categories and definition of treatment. There were 663 girls who attended schools that only received partial treatment. Under the ITT designation of treatment, 63.1 percent of the girls were treated, whereas 57.2 percent of girls were treated under the full-treatment designation.

Table 2: Treatment exposure rates of girls by assessment period

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Full-Treatment (FT) | | |  | Intent-to-Treat (ITT) | | |
|  | Control | Treatment | Total |  | Control | Treatment | Total |
| Both BL & ML Assessments | 727 | 966 | 1,693 |  | 727 | 1,200 | 1,927 |
| Only BL Assessment | 345 | 469 | 814 |  | 345 | 663 | 1,008 |
| Only ML Assessment[[5]](#footnote-5) | 705 | 944 | 1,649 |  | 705 | 1,179 | 1,884 |
|  |  |  |  |  |  |  |  |
| Total | 1,777 | 2,379 | 4,156 |  | 1,777 | 3,042 | 4,819 |

To determine if girls who received the treatment performed better on a variety of literacy and numeracy assessments, the evaluators statistically quantified the change in scores between the two assessment periods and intervention groups. While there was substantial attrition and substitution, as well as cases of inability to match girls across data collection points, a cohort regression approach was preferred over a cross-sectional approach since there is still a large enough sample to use and individual differences in scores is more informative than differences in cross-sectional means. The cohort difference-in-difference (DiD) regression approach only uses the girls who were tracked in both the baseline and midline assessments (i.e., 1,927 girls under the ITT designation and 1,693 girls under the full-treatment designation). The individual differences between the midline and baseline learning assessment are the primary variables of interest.

2.2 What has worked: A summary of interventions identified by participants as having the greatest impact on girls’ education

IGATE is designed to reach the most vulnerable girls in poor communities by targeting the most marginalised school communities, as classified by MoP&SE, within Zimbabwe’s poorest districts (as is discussed later in section 2.3). Monitoring results, anecdotal evidence, and data analysis suggest that the most vulnerable households and girls were most positively affected by IGATE interventions, including increased ability to pay school fees, having access to food, and reducing dropout rates.

Key qualitative findings from KIIs and FGDs provide evidence of the effects of four interventions being implemented at the time of the midline data collection: BEEP, MG, PW, and VSL. Girls who were members of the PW clubs were very vocal about how and why they enjoyed PW activities, as detailed in the following sections.

KII and FGD data show that MGs were clearly considered one of the most important and successful interventions. MGs appear to have been active in all districts and, generally, all stakeholders were aware of this intervention. The MGs were credited with addressing many of the barriers to girls’ education. When asked to discuss changes that have occurred in their communities as a result of IGATE interventions, many participants mentioned the efforts of the MGs as bringing about the most significant change. One person noted “the MG interventions are the most significant change in this community. It has fostered paradigm shifts. We have looked at cases of GBV (e.g., “forcing child to carry a heavier load than they are capable of doing”). Another respondent said “I think the most significant change is that of more children staying in school compared to past years where parents were not really bothered by the fact that their children have dropped out of school. I think this is because of the work of mother groups coupled with the efforts of the village heads who have taken it up to make certain that children get a proper education.”

VSL was another well-known intervention according to KII and FGD participants and was attributed with creating strong change in regards to families’ ability to pay school fees as well as purchase food or farming equipment/needs. Some participants identified VSL as the IGATE intervention that was bringing about the most significant change in their community:

* + “VSL is the most significant change because, besides talking about keeping girls in school, VSL came in as a vehicle to drive that initiative. The girl would require school fees, VSL will ensure that happens, the girl will require uniforms and we will get the money from VSL. This is an important part of the IGATE programme.”
  + “I think VSL groups because these have made parents want to work for their children to stay in school and also being very active in helping out in the income generating projects.”
  + “I have realised that those who are in VSL groups are very active and they can see that the money they are raising will help them in future when it comes to their children’s education.”

BEEP was discussed in positive terms by the majority of stakeholder groups and was a well-known intervention even in communities that had not yet received any bicycles. The use of bicycles was attributed to great changes in attendance and a reduction in tardiness as well as improving girls’ time management, allowing them to finish their chores and still arrive to school on-time, as well as leading to greater gender equity due to more bicycles being distributed to girls, enabling them equal access to school. Some KII and FGD participants described how, of all the IGATE interventions, it was BEEP that has resulted in the most significant change in their community:

* “Yes there is change. But I feel that were it not for the bicycles, people would not have been as eager to embrace the programme. The bicycles brought the biggest change even in people’s attitudes.”
* “The BEEP programme, it has caused a lot of positive change . . . Because of the new-found eagerness of students to go to school unlike before. They now have the bicycles. That’s the major change.”
* “The number one change that I noticed in this community was the BEEP project. This is the most important intervention because now even when the children are going back home they no longer get there when it’s already dark. When they are riding back home you see them in groups wearing some helmets and this is really nice to watch. Some time back the parents used to blame teachers for releasing the kids late.”

2.3 What impact has the project had on marginalised girls’ learning?

2.3.1 What impact has the project had on literacy outcomes?

This section presents the results from the quantitative analysis on the girls included in the longitudinal study (i.e., girls with learning outcomes in both the baseline and midline). The IGATE project tracks students from grades 1 through 9 in the baseline, thus any tables or regression output from the quantitative analysis will only consider the girls from these tracked cohorts (i.e., girls who were in Grade 0, Grade 10 or Grade 11 in the baseline and received assessments at both the baseline and midline are not included). Of the girls included in this longitudinal study, the majority were 9 to 11 years old (see Table 3a) and in Primary Grade 6 (see Table 3b). There do appear to be differences in the composition of the control group and treatment group with respect to age and grade. The control group has fewer girls who are 9 – 11 years old and more girls who are 14 – 15 years old than the treatment group. Additionally, the control group has fewer girls in grades 3 and 4 and more girls in Grade 5 than the treatment group.

Table 3: Sample size by group and treatment designation

|  |
| --- |
| 1. By age at midline assessment |
| |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Full-Treatment (FT) | | | | |  | Intent-to-Treat (ITT) | | | | | | Age | Control | | Treatment | | Total |  | Control | | Treatment | | Total | | < 6 years | 1 | 0.1% | 0 | 0.0% | 1 |  | 1 | 0.1% | 1 | 0.1% | 2 | | 6 - 8 years | 82 | 11.5% | 110 | 11.8% | 190 |  | 80 | 11.5% | 134 | 11.6% | 214 | | 9 - 11 years | 267 | 38.5% | 404 | 43.4% | 671 |  | 267 | 38.5% | 490 | 42.3% | 757 | | 12 - 13 years | 188 | 27.1% | 259 | 27.8% | 447 |  | 188 | 27.1% | 339 | 29.3% | 527 | | 14 - 15 years | 136 | 19.6% | 137 | 14.7% | 273 |  | 136 | 19.6% | 172 | 14.9% | 308 | | 16 - 19 years | 22 | 3.2% | 20 | 2.2% | 42 |  | 22 | 3.2% | 22 | 1.9% | 44 | |  |  |  |  |  |  |  |  |  |  |  |  | | Total | 694 | 100.0% | 930 | 100.0% | 1,624 |  | 694 | 100.0% | 1,158 | 100.0% | 1,852 | |
|  |
| 1. By grade at midline assessment[[6]](#footnote-6) |
| |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Full-Treatment (FT) | | | | |  | Intent-to-Treat (ITT) | | | | | | Grade | Control | | Treatment | | Total |  | Control | | Treatment | | Total | | Grade 0 | 2 | 0.3% | 1 | 0.1% | 3 |  | 2 | 0.3% | 4 | 0.3% | 6 | | Grade 1 | 39 | 5.6% | 63 | 6.8% | 102 |  | 39 | 5.6% | 73 | 6.3% | 112 | | Grade 2 | 105 | 15.1% | 139 | 14.9% | 244 |  | 105 | 15.1% | 172 | 14.9% | 277 | | Grade 3 | 95 | 13.7% | 151 | 16.2% | 246 |  | 95 | 13.7% | 184 | 15.9% | 279 | | Grade 4 | 92 | 13.3% | 144 | 15.5% | 236 |  | 92 | 13.3% | 187 | 16.1% | 279 | | Grade 5 | 119 | 17.1% | 147 | 15.8% | 266 |  | 119 | 17.1% | 182 | 15.7% | 301 | | Grade 6 | 126 | 18.2% | 175 | 18.8% | 301 |  | 126 | 18.2% | 223 | 19.3% | 349 | | Grade 7 | 53 | 7.6% | 57 | 6.1% | 110 |  | 53 | 7.6% | 77 | 6.6% | 130 | | Grade 8 | 37 | 5.3% | 41 | 4.4% | 78 |  | 37 | 5.3% | 44 | 3.8% | 81 | | Grade 9 | 25 | 3.6% | 12 | 1.3% | 37 |  | 25 | 3.6% | 12 | 1.0% | 37 | | Grade 10 | 1 | 0.1% | 0 | 0.0% | 1 |  | 1 | 0.1% | 0 | 0.0% | 1 | |  |  |  |  |  |  |  |  |  |  |  |  | | Total | 694 | 100.0% | 930 | 100.0% | 1,624 |  | 694 | 100.0% | 1,158 | 100.0% | 1,852 | |

A single-covariate DiD regression works under the assumption that the learning trajectories of the treatment and control group would have been the same in the absence of the intervention. However, given the descriptive statistics presented in Table 3, it is believed that the girls’ age and grade cohort composition differs systematically between the treatment and control groups. Additionally, based on the baseline data, it appeared that older students underperformed in the learning assessments. This could be related to differences in learning skills development among age groups or to different teaching styles across grades that may persist through time. Thus, controlling for these variables would capture any differences in the learning trajectories due to age or grade. Since these two covariates are related, only grade is used as a covariate in the DiD cohort regressions. Table 4 presents summary statistics for the child’s grade by treatment designation. The girls in the control group were in significantly higher grades, on average, than the girls in the treatment group.

Table 4: Child’s grade summary statistics at midline by treatment designation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Obs | Mean | Std. Dev. | Min | Max |  | t-statistic |
| Child's Grade in School (ITT) |  |  |  |  |  |  |  |
| Control | 694 | 4.546 | 2.096 | 0 | 10 |  | 2.718\*\*\* |
| Treatment | 1,158 | 4.287 | 1.921 | 0 | 9 |  |  |
|  |  |  |  |  |  |  |  |
| Child's Grade in School (FT) |  |  |  |  |  |  |  |
| Control | 694 | 4.546 | 2.096 | 0 | 10 |  | 2.533\*\*\* |
| Treatment | 930 | 4.290 | 1.949 | 0 | 9 |  |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |

At both baseline and midline, literacy and numeracy assessments were conducted in the household. Literacy outcomes include the Early Grade Reading Assessment (EGRA) tests on letters and sounds (*egraletter*), invented word reading (*egrainvent*), oral reading fluency 1 (*egraorf1*), oral reading fluency 2 (*egraorf2*), and comprehension 1 (*egracomp1*).[[7]](#footnote-7) The letter and sounds test was out of 100 questions, the invented word reading test was based on 50 questions, the oral reading fluency test 1 was based on 78 questions, the oral reading fluency test 2 was based on 125 questions and the comprehension 1 test was based on 5 questions. The first four literacy tests are scored based on the number of correct answers per minute. The comprehension test is scored based on the number of correct answers. Table 5 presents mean, minimum and maximum literacy scores at baseline and midline, with a t-test of the differences in mean scores between the control and treatment groups at each point in time. The null hypothesis is that there are no differences between the treatment and control groups. These statistics are presented for each treatment designation: ITT in panel (a), and full-treatment in panel (b).

Results varied across the literacy measures and assessment period. For each literacy assessment, the control group scored higher than the treatment group (regardless of treatment designation). These differences were significant at the midline assessment on letters (1.35 letters correct per minute difference), the baseline and midline assessments on invented words (1.93 and 2.26 words correct per minute differences), the baseline assessment of oral reading fluency 2 (8.28 words correct per minute difference) and both the baseline and midline assessments of comprehension 1 (0.137 and 0.214 answers correct differences). The differences were of less significance using the full-treatment designation*. For all five of the literacy tests, there were substantial improvements in the testing scores between the baseline and midline.* Using the full-treatment designation yields similar results.

Table 5: Literacy outcome scores by treatment group

|  |
| --- |
| 1. Intent-to-Treat (ITT) |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | Observations | |  | Mean | | |  | Minimum | |  | Maximum | | | Outcome |  | Control | Treatment |  | Control | Treatment | t-statistic |  | Control | Treatment |  | Control | Treatment | | *egraletter* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 693 | 1144 |  | 5.462 | 4.812 | 1.432 |  | 0 | 0 |  | 60 | 60 | | Midline |  | 694 | 1158 |  | 12.618 | 11.265 | 1.878\* |  | 0 | 0 |  | 85 | 82 | | *egrainvent* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 688 | 1142 |  | 17.275 | 15.344 | 2.398\*\* |  | 0 | 0 |  | 84 | 78 | | Midline |  | 693 | 1158 |  | 28.082 | 25.827 | 2.405\*\* |  | 0 | 0 |  | 103 | 98 | | *egraorf1* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 499 | 867 |  | 25.815 | 24.757 | 0.608 |  | 0 | 0 |  | 128 | 150 | | Midline |  | 510 | 899 |  | 62.757 | 60.804 | 0.777 |  | 0 | 0 |  | 195 | 213 | | *egraorf2* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 175 | 242 |  | 63.074 | 54.790 | 2.622\*\*\* |  | 0 | 0 |  | 140 | 160 | | Midline |  | 182 | 256 |  | 86.392 | 83.302 | 0.981 |  | 2 | 2 |  | 190 | 174 | | *egracomp1* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 694 | 1158 |  | 0.664 | 0.527 | 2.544\*\* |  | 0 | 0 |  | 5 | 5 | | Midline |  | 613 | 1026 |  | 1.706 | 1.492 | 2.694\*\*\* |  | 0 | 0 |  | 5 | 5 | | \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | | | |
|  |
| 1. Full-Treatment (FT) |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | Observations | |  | Mean | | |  | Minimum | |  | Maximum | | | Outcome |  | Control | Treatment |  | Control | Treatment | t-statistic |  | Control | Treatment |  | Control | Treatment | | *egraletter* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 693 | 917 |  | 5.462 | 4.902 | 1.166 |  | 0 | 0 |  | 60 | 60 | | Midline |  | 694 | 930 |  | 12.618 | 11.515 | 1.439 |  | 0 | 0 |  | 85 | 82 | | *egrainvent* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 688 | 915 |  | 17.275 | 15.773 | 1.762\* |  | 0 | 0 |  | 84 | 78 | | Midline |  | 693 | 930 |  | 28.082 | 26.182 | 1.931\* |  | 0 | 0 |  | 103 | 95 | | *egraorf1* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 499 | 698 |  | 25.815 | 25.290 | 0.287 |  | 0 | 0 |  | 128 | 150 | | Midline |  | 510 | 729 |  | 62.757 | 61.618 | 0.434 |  | 0 | 0 |  | 195 | 210 | | *egraorf2* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 175 | 191 |  | 63.074 | 56.802 | 1.887\* |  | 0 | 0 |  | 140 | 160 | | Midline |  | 182 | 200 |  | 86.392 | 85.691 | 0.212 |  | 2 | 2 |  | 190 | 174 | | *egracomp1* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 694 | 930 |  | 0.664 | 0.525 | 2.469\*\* |  | 0 | 0 |  | 5 | 5 | | Midline |  | 613 | 826 |  | 1.706 | 1.511 | 2.33\*\* |  | 0 | 0 |  | 5 | 5 | | \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | | | |

Table 6 presents the results from a multi-variate DiD estimation on the five literacy assessments. Treatment status and dummy variables for the midline grade cohort were included as covariates. From baseline to midline, the IGATE treatment as a whole did not produce significant effects in any of the five EGRA skill areas. For the letters and sounds test, children in lower grades appear to have higher achievement than those in Grade 10. The magnitude of achievement increases from the lower grades to higher grades, which does not support the hypothesis that the learning effects decrease as children age or enter higher grades. It does support the notion that learning effects differ by grade, however. For the oral reading fluency 1 test, the children in grades 0, 1, 2 and 4 perform significantly worse than those in grade 7. Again, this negative effect appears to temper in higher grades. There are no significant grade effects on the oral reading fluency 2 test, and only one on the invented word test. Finally, for the comprehension 1 test, all of the Grades 0 – 9 have significantly negative effects on learning relative to Grade 10. However, these effects remain relatively stable as grade increases.

The results for the full-treatment designation are quite similar to those for ITT and are presented in the Appendix Table B1. There are no significant effects of treatment on any of the five EGRA skill areas. For the letters and sounds test, children in Grade 4 and higher have increasing positive and significant achievements relative to children in Grade 0. Children in Grade 1 have significantly negative invented word achievements relative to Grade 9. For the oral reading fluency 1 test, children in grades 1 through 6 have increasingly negative and significant achievements relative to children in Grade 7. There are no significant grade effects on the oral reading fluency 2 test. Finally, for the comprehension 1 test, all of the grades 0 through 9 have significantly negative effects on learning relative to Grade 10, and these effects remain relatively stable as grade-level increases.

Table 6: DiD estimates on literacy outcomes – ITT

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 |
|  |  |  |  |  |  |
| Treatment (ITT) | -0.329 | -0.236 | 0.234 | 4.001 | -0.083 |
|  | (0.957) | (0.882) | (2.381) | (2.534) | (0.073) |
| Child's Grade in School -- 0 | -4.447 | -4.662 | -64.208\*\*\* | - | -3.708\*\*\* |
|  | (4.941) | (5.425) | (15.335) |  | (0.228) |
| Child's Grade in School -- 1 | 4.412\*\*\* | -5.996\* | -49.998\*\*\* | - | -3.658\*\*\* |
|  | (1.446) | (3.021) | (16.151) |  | (0.105) |
| Child's Grade in School -- 2 | 3.131\*\*\* | -1.585 | -33.162\*\* | - | -3.494\*\*\* |
|  | (0.925) | (2.805) | (15.495) |  | (0.068) |
| Child's Grade in School -- 3 | 5.268\*\*\* | -1.729 | -23.890 | - | -2.973\*\*\* |
|  | (1.135) | (2.877) | (15.693) |  | (0.103) |
| Child's Grade in School -- 4 | 6.658\*\*\* | -2.644 | -26.513\* | - | -3.003\*\*\* |
|  | (1.087) | (2.760) | (15.377) |  | (0.097) |
| Child's Grade in School -- 5 | 8.463\*\*\* | -2.361 | -24.649 | 1.309 | -2.798\*\*\* |
|  | (1.101) | (2.679) | (15.299) | (34.454) | (0.095) |
| Child's Grade in School -- 6 | 8.492\*\*\* | -3.262 | -13.417 | 13.727 | -2.677\*\*\* |
|  | (1.158) | (2.763) | (15.629) | (32.038) | (0.075) |
| Child's Grade in School -- 7 | 7.741\*\*\* | -4.120 | - | 8.325 | -3.226\*\*\* |
|  | (1.801) | (3.009) |  | (31.694) | (0.166) |
| Child's Grade in School -- 8 | 12.685\*\*\* | 0.100 | 14.275 | 7.196 | -3.233\*\*\* |
|  | (2.253) | (3.003) | (38.766) | (31.827) | (0.119) |
| Child's Grade in School -- 9 | 16.593\*\*\* | - | - | 3.614 | -3.514\*\*\* |
|  | (3.665) |  |  | (31.617) | (0.297) |
| Child's Grade in School -- 10 | - | - | - | 42.539 | - |
|  |  |  |  | (31.753) |  |
|  |  |  |  |  |  |
| Observations | 1,837 | 1,829 | 1,366 | 413 | 1,639 |
| R-squared | 0.035 | 0.008 | 0.089 | 0.036 | 0.053 |
| Robust standard errors in parentheses | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | |
|  | | | | | |
| Note: The interpretation of the grade dummies are with respect to grade 10 for egraletter, grade 9 for egrainvent, grade 7 for egraorf1, grade 4 for egraorf2 and grade 10 for egracomp1. Grade cohorts are with respect to the midline assessment period. | | | | | |

Note from the IGATE Project

A cross-sectional DiD analysis using the full sample (ITT) indicates the presence of a statistically significant increase in the performance of treatment students in the oral reading fluency 2 test, over and above the control group (p<0.05). The larger sample in the cross-sectional analysis (1,009 students, compared to 413 in the cohort analysis) allows for the identification of the effect.

DiD models also were run on the three most developed and widespread individual interventions in treatment school communities, VSL, MG and PW. In these analyses, treatment was defined as a binary indicator if the respective treatment had been in the community for six months or longer. Of the 53 original treatment schools, 43 were in communities that had received six months or more of a VSL intervention or PW intervention, and 37 were in communities with six months or more of a MG intervention.

Table 7 shows the coefficients and standard errors for each of the three individual treatment indicators on the various literacy outcomes. The MG treatment has significantly positive effects on one subtest (oral reading fluency 2). For the remaining subtests, and for VSL and PW individually, there were no significant effects on any of the reading skills. The full regression tables using the individual treatment indicators are presented in the Appendix.

Table 7: DiD estimates of the individual treatment indicators on literacy outcomes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 |
|  |  |  |  |  |  |
| VSL Treatment | -0.140 | -0.351 | 0.746 | 3.968 | -0.064 |
|  | (1.000) | (0.914) | (2.360) | (2.585) | (0.076) |
| MG Treatment | -0.035 | -0.311 | 0.654 | 4.822\*\* | -0.050 |
|  | (1.042) | (0.930) | (2.420) | (2.385) | (0.080) |
| PW Treatment | -0.116 | 0.008 | 0.393 | 3.725 | -0.071 |
|  | (1.021) | (0.953) | (2.383) | (3.157) | (0.080) |
| Robust standard errors in parentheses | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | |

In summary, controlling for differences between the control and treatment groups, the IGATE intervention implemented to date, as a whole, has not had significant effects on the five reading skills measured, including oral reading fluency 1. The MG model, however, has had a significantly positive effect on one reading subtest, oral reading fluency 2.

The estimation approach outlined in the outcomes spreadsheet uses a weighted midline target literacy scores that is a combination of the EGRA ORF1 scores for grades 1 through 5 and EGRA ORF2 scores for grades 6 through 9. The weighted midline target literacy score for EGRA ORF1 is 5.37. IGATE achieved a weighted midline EGRA ORF1 scores of -2.70, which is -50.3 percent of the target score. The weighted midline target literacy score for EGRA ORF2 is 6.37. IGATE achieved a weighted midline EGRA ORF2 scores of 1.24, which is 19.44 percent of the target score. Together, the weighted midline target literacy score from both ORF1 and ORF2 is 5.63. IGATE achieved -29.7 percent of the weighted target score for literacy.

The adjusted estimate of achievement from the multi-variate DiD regression is 0.23 for ORF1 and 4.00 for ORF2, which is a 22 percent achievement overall of the weighted midline target score for literacy.

The remainder of this section presents qualitative findings. The IGATE project has had an impact on marginalised girls’ learning in general and some IGATE activities have had an impact on aspects of literacy and numeracy.

During FGDs, some girls in PW clubs provided evidence of improved learning outcomes. When asked how they benefited from participating in the PW club, a few girls mentioned being better in school or valuing school more. The following is an example of how girls in Chivi talked about how their participation in the PW club has helped them in school:

Helped me to be able to read well. (Respondent [R]10)

I am not shy anymore. (R4)

It helped me to be a well-behaved child who listens. (R9)

Taught me to work hard in school and strive to finish school. (R5)

Taught me to think about what I would want to do when l grow up. (R11)

Teaches us to be good listeners. (R3)

It teaches us to be good children who are well-behaved. (R11)

It teaches us to be clever girls. (R3)

We are taught that when we do not know something we should ask our teachers. (R9)

A girl in Gokwe North described how “my future is now bright because Power Within taught us not to be shy when talking in front of people.” A teacher in Lupane noted how “I think the performance in class of some children [in the PW club] has significantly improved . . . because most of the children who are involved in these clubs are now doing well in school . . . I think their involvement in these activities equips them with skills that are essential for their learning”.

Girls were far more likely to describe the fun they have and what they learn in the PW club (such as hygiene related to menstruation, abuse, and girls’ rights) rather than how it specifically helps them as students. This will be discussed further in the section on improving attendance and retention.

It is also important to consider how club members were selected. Some girls, such as those in Binga, described how PW club members were chosen:

Those who respect parents. (R7)

Those who are doing good in school. (R8)

Those who listen to teachers. (R1)

Others were chosen because they are hardworking. They help their parents in doing household chores. (R9)

In Gokwe South, girls responded by saying the following club members are those

Whose parents died. (R4)

Who have good hearts, who are not mean. (R12)

Who have a good character. (R3)

Who are obedient. (R7)

Who are smart [cleanliness]. (R11)

While a few FGD respondents perceive that girls who perform well or have good character are selected for the club, this does not necessarily contrast with IGATE project guidelines (see below). However, it could raise the question whether the girls who are doing poorly in school, are being selected. Also, since PW club membership is capped at 50, only a small percentage of girls attending large schools have had the opportunity to participate in and benefit from PW club activities. This will be explored further at endline.

**Note from the IGATE Project**

Membership of the PW club is recommended based on the following criteria:

|  |  |
| --- | --- |
| **Most qualifying** | **Least qualifying** |
| 1. Total orphan with no support from guardian | 1. Able guardian, owning assets |
| 1. Partial orphan with unemployed or bed-ridden guardian, and/or family separations. | 1. Guardian is employed |
| 1. Child living in child-headed household | 1. Income generating assets |
| 1. Poor performance and discipline is lacking, not out going and reserved | 1. Well disciplined, active and performance is good |
| 1. Affected by AIDS and/or parents have died due to AIDS | 1. Not affected |
| 1. Household with no income, no assets; child labour | 1. Economically stable |
| 1. Severely abused children 2. Children living with disabilities | 1. Not abused 2. No disabilities. |

Based on the above, membership clearly targets marginalised girls. This is confirmed by the results of the FGD in Gokwe South, which indicates the membership of orphans, and partially by the FGD in Binga, which indicates the participation of children who participate in household chores. It is important to note that the result of one FGD indicating that girls who perform well have been selected for the club (against project guidelines) should not be regarded as conclusive.

It is critical to the findings to note that the MoP&SE has implemented a literacy initiative in all schools (including IGATE treatment and control schools) during the last 18 months. This program may (i.e., is likely to) impact literacy outcomes in both the treatment and control groups. It is unknown if these impacts would be balanced between the two groups. It is also important to highlight that the Happy Readers intervention—which directly supports teachers’ efforts to improve students’ literacy skills—was just starting implementation at the time of the midline evaluation (see section 1.1.3). Data on the effects of Happy Readers will be collected at endline.

2.3.2 What impact has the Girls’ Education Challenge (GEC) had on numeracy outcomes?

When exploring IGATE’s impact on numeracy outcomes, it is important to highlight that none of the IGATE interventions directly supports teachers’ efforts to improve students’ numeracy skills, such as training teachers on how to teach mathematics more effectively.

From a qualitative perspective, there is some evidence provided by girls who are PW club members that participation in the club has helped them to be better students. While these girls never mentioned their mathematical competence or achievement directly, it is assumed that if they are more attentive in class, are overcoming shyness by speaking up, and are working harder in school (as noted in their direct quotes in the previous section) then this may have a positive effect on their literacy outcomes. It is also important to note that at each IGATE school only 50 girls are able to participate in the PW club, representing a small percentage of the girls who completed the Early Grade Math Assessment (EGMA) tests.

To assess the impact of IGATE on numeracy outcomes, girls were assessed using EGMA instruments covering number identification (*egmanumb*), number quantitative (*egmaquant*), missing numbers (*egmamiss*), addition (*egmaadd*), subtraction (*egmasub*), and word problems (*egmaprob*).[[8]](#footnote-8) The number identification, addition and subtraction tests were based on 20 questions, the number quantitative and missing numbers tests were based on 10 questions and the word problems tests was based on 16 questions. Each of the six numeracy assessments are scored based on the number of correct answers. The final numeracy outcome (*egmatotal*) is an equally weighted average of the first five tests (not including egmaprob). Table 8 presents the mean, minimum and maximum numeracy scores at baseline and midline (by treatment designation), with a t-test to measure whether differences in treatment and control group mean scores are significant. (The null hypothesis is that there are no significant differences.)

As shown in Table 8, at baseline there were statistically significant differences in favour of the control group, in number identification (0.61 point difference), number quantitative (0.28 point difference), missing numbers (0.31 point difference), addition (0.83 point difference), subtraction (0.61 point difference) and the EGMA total (3.12 point difference). There were statistically significant differences at midline in word problems (1.1 point difference), also in favour of the control group.

Table 8: Numeracy outcome scores by treatment group

|  |
| --- |
| 1. Intent-to-Treat (ITT) |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | Observations | |  | Mean | | |  | Minimum | |  | Maximum | | | Outcome |  | Control | Treatment |  | Control | Treatment | t-statistic |  | Control | Treatment |  | Control | Treatment | | *egmanumb* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 693 | 1155 |  | 14.794 | 14.186 | 1.94\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 1157 |  | 18.014 | 17.972 | 0.249 |  | 0 | 0 |  | 20 | 20 | | *egmaquant* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 689 | 1151 |  | 6.289 | 6.009 | 1.685\* |  | 0 | 0 |  | 10 | 10 | | Midline |  | 694 | 1157 |  | 8.365 | 8.277 | 0.941 |  | 4 | 4 |  | 10 | 10 | | *egmamiss* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 1155 |  | 4.369 | 4.057 | 2.415\*\* |  | 0 | 0 |  | 10 | 10 | | Midline |  | 694 | 1157 |  | 6.209 | 6.122 | 1.081 |  | 4 | 4 |  | 10 | 10 | | *egmaadd* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 1151 |  | 9.909 | 9.080 | 2.837\*\*\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 1157 |  | 12.399 | 12.262 | 0.528 |  | 0 | 0 |  | 20 | 20 | | *egmasub* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 1152 |  | 7.450 | 6.843 | 2.274\*\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 1157 |  | 9.202 | 8.955 | 0.955 |  | 0 | 0 |  | 20 | 20 | | *egmaprob* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 140 | 215 |  | 8.257 | 8.153 | 0.226 |  | 0 | 0 |  | 16 | 16 | | Midline |  | 173 | 247 |  | 11.416 | 10.316 | 2.911\*\*\* |  | 1 | 0 |  | 16 | 16 | | *egratotal* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 686 | 1143 |  | 53.541 | 50.426 | 2.392\*\* |  | 0 | 0 |  | 98 | 98 | | Midline |  | 694 | 1157 |  | 68.762 | 67.986 | 0.883 |  | 16 | 16 |  | 99 | 100 | | \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | | | |
|  |
| 1. Full-Treatment (FT) |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | Observations | |  | Mean | | |  | Minimum | |  | Maximum | | | Outcome |  | Control | Treatment |  | Control | Treatment | t-statistic |  | Control | Treatment |  | Control | Treatment | | *egmanumb* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 693 | 927 |  | 14.794 | 14.252 | 1.652\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 929 |  | 18.014 | 18.065 | -0.289 |  | 0 | 0 |  | 20 | 20 | | *egmaquant* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 689 | 923 |  | 6.289 | 6.081 | 1.201 |  | 0 | 0 |  | 10 | 10 | | Midline |  | 694 | 929 |  | 8.365 | 8.344 | 0.208 |  | 4 | 4 |  | 10 | 10 | | *egmamiss* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 927 |  | 4.369 | 4.091 | 2.057\*\* |  | 0 | 0 |  | 10 | 10 | | Midline |  | 694 | 929 |  | 6.209 | 6.167 | 0.497 |  | 4 | 4 |  | 10 | 10 | | *egmaadd* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 923 |  | 9.909 | 9.220 | 2.252\*\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 929 |  | 12.399 | 12.339 | 0.222 |  | 0 | 0 |  | 20 | 20 | | *egmasub* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 691 | 924 |  | 7.450 | 6.958 | 1.766\* |  | 0 | 0 |  | 20 | 20 | | Midline |  | 694 | 929 |  | 9.202 | 9.059 | 0.527 |  | 0 | 0 |  | 20 | 20 | | *egmprob* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 140 | 176 |  | 8.257 | 8.295 | -0.081 |  | 0 | 0 |  | 16 | 16 | | Midline |  | 173 | 195 |  | 11.416 | 10.533 | 2.218\*\* |  | 1 | 0 |  | 16 | 16 | | *egratotal* |  |  |  |  |  |  |  |  |  |  |  |  |  | | Baseline |  | 686 | 915 |  | 53.541 | 51.011 | 1.858\* |  | 0 | 0 |  | 98 | 98 | | Midline |  | 694 | 929 |  | 68.762 | 68.485 | 0.303 |  | 16 | 16 |  | 99 | 100 | | \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | | | |

Table 9 presents the results from a DiD estimation on the numeracy assessments for the ITT designation with midline grade cohort dummy variables. *For the IGATE intervention as a whole, there were positive statistically significant treatment effects on girls’ number and addition numeracy scores*, as well as negative and statistically significant treatment effects on the girls’ word problem scores. For most of the numeracy learning outcomes, the grade cohort has significant effects on the score. Unlike the literacy learning outcome results, there are not clear ascending or descending patterns with respect to the effect of moving to higher grades. For the number identification, quantitative, and missing numbers tests, nearly all of the girls in grade cohorts performed significantly better than those in Grade 10. For the addition test, girls in grades 2, 3 and 10 had significantly higher scores than those girls in Grade 0. For the word problem test, the girls in grades 5 through 10 performed significantly worse than the girls in Grade 4. Finally, for the EGMA total score, girls in the lower grades performed significantly better than those in Grade 10, while girls in the upper grades performed significantly worse.

The results for the full-treatment designation were slightly different than those for ITT and are presented in the Appendix Table B2. The IGATE intervention as a whole had significantly positive effects on girls’ addition numeracy scores. For most of the numeracy learning outcomes, the grade cohort has significant effects on the assessment score. For the number identification assessment, girls in grades 1 through 5 performed significantly better than girls in Grade 0. The magnitude of achievement decreased as grade increased. For the quantitative assessment, girls in grades 1 through 3 performed significantly better than girls in Grade 0, while girls in grades 7 through 10 performed significantly worse. For the missing numeracy assessment, all grades performed significantly better than those in Grade 10. With the exception of Grade 0, these effects decreased as grade increased. For the addition test, girls in grades 7 through 9 had significantly lower scores than those girls in Grade 0, while girls in Grade 10 had significantly higher scores. For the subtraction assessment, only Grade 10 was significant relative to Grade 0. For the word problem test, the girls in grades 7 through 10 performed significantly worse than the girls in Grade 5, while girls in Grade 6 performed significantly better. Finally, for the EGMA total score, girls in the lower grades performed significantly better than those in Grade 10, while girls in the upper grades performed significantly worse.

Table 9: DiD estimates on numeracy outcomes – ITT

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| VARIABLES | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |
| Treatment (ITT) | 0.374\* | 0.093 | 0.114 | 0.546\* | 0.294 | -1.022\* | 1.606 |
|  | (0.222) | (0.148) | (0.113) | (0.281) | (0.284) | (0.573) | (0.995) |
| Child's Grade in School -- 0 | 2.417\*\*\* | 1.938 | 2.924\*\*\* | - | - | - | -1.237 |
|  | (0.534) | (1.486) | (0.794) |  |  |  | (5.160) |
| Child's Grade in School -- 1 | 9.619\*\*\* | 3.830\*\*\* | 4.616\*\*\* | 2.131 | -0.020 | - | 14.848\*\*\* |
|  | (0.808) | (0.213) | (0.177) | (1.901) | (1.020) |  | (1.997) |
| Child's Grade in School -- 2 | 10.652\*\*\* | 4.477\*\*\* | 4.508\*\*\* | 3.569\* | 1.341 | - | 20.082\*\*\* |
|  | (0.417) | (0.208) | (0.124) | (1.872) | (1.067) |  | (1.474) |
| Child's Grade in School -- 3 | 6.506\*\*\* | 2.960\*\*\* | 3.688\*\*\* | 3.631\*\* | 0.692 | - | 10.668\*\*\* |
|  | (0.322) | (0.197) | (0.141) | (1.821) | (1.065) |  | (1.389) |
| Child's Grade in School -- 4 | 4.717\*\*\* | 1.985\*\*\* | 2.662\*\*\* | 2.048 | 0.363 | - | 2.979\*\* |
|  | (0.287) | (0.175) | (0.161) | (1.871) | (1.133) |  | (1.130) |
| Child's Grade in School -- 5 | 3.651\*\*\* | 1.459\*\*\* | 2.236\*\*\* | 2.683 | 0.771 | -4.883\*\*\* | 1.128 |
|  | (0.223) | (0.164) | (0.126) | (1.797) | (1.020) | (1.374) | (1.007) |
| Child's Grade in School -- 6 | 3.077\*\*\* | 1.108\*\*\* | 2.326\*\*\* | 2.474 | 1.465 | -1.684\*\*\* | 0.459 |
|  | (0.199) | (0.140) | (0.131) | (1.801) | (1.102) | (0.462) | (0.855) |
| Child's Grade in School -- 7 | 2.094\*\*\* | 0.343 | 1.709\*\*\* | -0.649 | -1.693 | -5.319\*\*\* | -9.633\*\*\* |
|  | (0.260) | (0.246) | (0.214) | (1.893) | (1.162) | (0.484) | (1.472) |
| Child's Grade in School -- 8 | 2.056\*\*\* | 0.266 | 1.209\*\*\* | -1.352 | -2.501\*\* | -5.825\*\*\* | -12.267\*\*\* |
|  | (0.341) | (0.248) | (0.144) | (1.863) | (1.181) | (0.500) | (1.504) |
| Child's Grade in School -- 9 | 2.879\*\*\* | 0.294 | 1.098\*\*\* | -0.777 | -1.075 | -5.264\*\*\* | -9.575\*\*\* |
|  | (0.402) | (0.253) | (0.251) | (1.873) | (1.098) | (0.691) | (0.903) |
| Child's Grade in School -- 10 | - | - | - | 6.697\*\*\* | 6.696\*\*\* | -4.022\*\*\* | - |
|  |  |  |  | (1.815) | (1.020) | (0.573) |  |
|  |  |  |  |  |  |  |  |
| Observations | 1,847 | 1,839 | 1,845 | 1,841 | 1,842 | 340 | 1,828 |
| R-squared | 0.295 | 0.235 | 0.234 | 0.084 | 0.051 | 0.176 | 0.261 |
| Robust standard errors in parentheses | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |
|  | | | | | | | |
| Note: The interpretation of the grade dummies are with respect to Grade 10 for egmanub, egmaquant, egmamiss and egmatotal. It is with respect to Grade 0 for egmaadd and egmasub and Grade 4 for egmaprob. Grade cohorts are with respect to the midline assessment period. | | | | | | | |

Table 10 presents the coefficients and standard errors for each of the interactions between the three individual treatment indicators and assessment time period indicators on the various numeracy outcomes. It was estimated that numeracy achievement associated with the VSL treatment was a significant effect of 0.502 correct answers on the addition test, and the MG treatment significantly increased the number identification score by 0.437 correct answers. The PW treatment significantly increased the number identification, addition and EGMA total scores, and significantly decreased the word problem scores. The full regression tables using the individual treatment indicators are presented in the Appendix.

Table 10: DiD estimates of the individual treatment indicators on numeracy outcomes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| VARIABLES | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |
| VSL Treatment | 0.338 | 0.087 | 0.115 | 0.502\* | 0.294 | -0.825 | 1.501 |
|  | (0.233) | (0.152) | (0.119) | (0.300) | (0.296) | (0.593) | (1.045) |
| MG Treatment | 0.437\* | 0.112 | 0.126 | 0.494 | 0.259 | -0.828 | 1.632 |
|  | (0.243) | (0.157) | (0.126) | (0.307) | (0.311) | (0.620) | (1.109) |
| PW Treatment | 0.405\* | 0.163 | 0.138 | 0.683\*\* | 0.427 | -1.463\*\* | 2.091\*\* |
|  | (0.237) | (0.152) | (0.120) | (0.293) | (0.294) | (0.673) | (1.032) |
| Robust standard errors in parentheses | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |

In summary, the only statistically significant effects of the IGATE interventions using the ITT designation on numeracy scores were for addition. However, (see Table 10), the PW treatment significantly affected girls’ performance on four of the numeracy subtest scores, and the VSL and MG treatment significantly increased girls’ performance on one of the numeracy subtest scores each.

Using the estimation approach outlined in the outcomes spreadsheet, the weighted midline target numeracy score is 3.39. IGATE achieved a weighted midline score of 1.65, which is 48.76% percent of the target score for numeracy. The adjusted estimate of achievement from the multi-variate DiD regression is 1.61 for EGMA total, which is a 47 percent achievement overall of the weighted midline target score for literacy.

A table that compares the main learning assessment score differences (egraorf1, egraorf2 and egmatotal) by (baseline cohort) grade and (ITT) treatment status is presented in the Appendix.

**Notes from the IGATE Project**

The analysis indicates a positive, statistically significant effect of the PW intervention on improving numeracy scores. Qualitative data suggests that this effect is potentially linked to the increased participation of girls in classroom, related to an increase in their self-confidence and voice. It is interesting to note that this effect is being particularly noted in a subject (mathematics) where girls are traditionally regarded as performing below boys. It is possible that IGATE’s promotion of more equitable treatment in classrooms may have had an influence on teachers’ interactions with students and support of girls; it is also likely that the development of their self-confidence and voice enabled girls to ask questions openly and to request explanations from teachers, thus improving their performance.

2.3.3 Were there any unintended effects?

There were no notable unintended effects of IGATE interventions, apart from some significantly higher learning outcomes results for the control group as compared to the treatment group.

2.3.4 Has IGATE closed the gap in learning among marginalised girls?

Controlling for differences between the control and treatment groups, the IGATE interventions implemented to date have not had significant effects on the EGRA subtests.

Similarly, there were no statistically significant effects of treatment interventions as a whole on the total mathematics score. However, the PW treatment significantly increased several numeracy sub-test scores.

2.4 What impact has IGATE had on enabling marginalised girls to be in school?

2.4.1 What effects has IGATE had on attendance?

Quantitative data suggest very high attendance rates. Attendance data reported in Table 11 come from the following questions in the teacher questionnaire: "B24. How many days has [GIRL] attended during this school year (so far)?”, “B25. Record: number of possible attendance days so far this year”, “B26. How many days has [GIRL] attended last year?” and “B27. Number of possible attendance days last school year”. Attendance rates were calculated as the percentage of days attended relative to the total number of days possible. In both the previous year and current year, the control group had significantly higher attendance rates than the treatment group, regardless of the definition of treatment.[[9]](#footnote-9)

Table 11: Attendance rates at midline and previous year, by intervention group

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Observations | |  | Mean Attendance Rate | | |
| Treatment Definition | Assessment Period |  | Control | Treatment |  | Control | Treatment | T statistic |
| Intent-to-Treat | Previous Year |  | 624 | 950 |  | 0.949 | 0.929 | 5.074\*\*\* |
|  | Current Year |  | 1,025 | 1,675 |  | 0.942 | 0.934 | 2.319\*\* |
|  |  |  |  |  |  |  |  |  |
| Full-Treatment | Previous Year |  | 624 | 803 |  | 0.949 | 0.93 | 4.576\*\*\* |
|  | Current Year |  | 1,025 | 1,339 |  | 0.942 | 0.934 | 2.138\*\* |
|  |  |  |  |  |  |  |  |  |
| VSL Treatment | Previous Year |  | 624 | 803 |  | 0.949 | 0.93 | 4.576\*\*\* |
|  | Current Year |  | 1,025 | 1,374 |  | 0.942 | 0.934 | 2.197\*\* |
|  |  |  |  |  |  |  |  |  |
| MG Treatment | Previous Year |  | 624 | 681 |  | 0.949 | 0.927 | 5.136\*\*\* |
|  | Current Year |  | 1,025 | 1,175 |  | 0.942 | 0.931 | 2.826\*\*\* |
|  |  |  |  |  |  |  |  |  |
| PW Treatment | Previous Year |  | 624 | 850 |  | 0.949 | 0.931 | 4.482\*\*\* |
|  | Current Year |  | 1,025 | 1,360 |  | 0.942 | 0.933 | 2.501\*\* |
|  |  |  |  |  |  |  |  |  |
| BEEP Treatment | Previous Year |  | 624 | 154 |  | 0.949 | 0.893 | 6.678\*\*\* |
|  | Current Year |  | 1,025 | 242 |  | 0.942 | 0.912 | 3.644\*\*\* |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | |

Table 11a: Percentage of girls who attended school most days school was open, at baseline and midline, by wealth quintiles and intervention group

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Group/Characteristic | Observations | |  | Mean Attendance Rate | | |
|  | Control | Treatment |  | Control | Treatment | T statistic |
| **Baseline** |  |  |  |  |  |  |
| Total | 566 | 710 |  | 0.954 | 0.924 | 2.208\*\* |
| Primary grades | 502 | 657 |  | 0.948 | 0.921 | 1.843\* |
| Secondary grades | 61 | 49 |  | 1.000 | 0.959 | 1.596 |
| *Wealth* |  |  |  |  |  |  |
| Poorest quintile | 114 | 138 |  | 0.939 | 0.877 | 1.666\* |
| Second q | 116 | 135 |  | 0.948 | 0.896 | 1.517 |
| Middle q | 98 | 154 |  | 0.939 | 0.942 | -0.091 |
| Fourth q | 111 | 140 |  | 0.973 | 0.950 | 0.922 |
| Richest q | 115 | 128 |  | 0.974 | 0.953 | 0.855 |
|  |  |  |  |  |  |  |
| **Midline** |  |  |  |  |  |  |
| Total | 984 | 1250 |  | 0.935 | 0.910 | 2.140\*\* |
| Primary grades | 432 | 577 |  | 0.929 | 0.908 | 1.149 |
| Secondary grades | 60 | 47 |  | 0.961 | 0.929 | 0.680 |
| *Wealth* |  |  |  |  |  |  |
| Poorest quintile | 100 | 125 |  | 0.920 | 0.912 | 0.214 |
| Second q | 99 | 119 |  | 0.949 | 0.933 | 0.517 |
| Middle q | 94 | 139 |  | 0.904 | 0.906 | -0.057 |
| Fourth q | 92 | 123 |  | 0.946 | 0.927 | 0.551 |
| Richest q | 96 | 104 |  | 0.948 | 0.875 | 1.806\* |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | |  |  |  |

**Note from the IGATE Project**

A pattern of slight decline in attendance is observed in control schools, suggesting the impact of the persistent drought; it is possible that this situation is understated in the data, given the pressure on teachers to report high attendance rates. On the other hand, **a consistent pattern of improved attendance is observed in treatment schools.** A similar effect is observed when the analysis is disaggregated by intervention component. The observation is corroborated by qualitative data. The results suggest that IGATE is having a positive impact on attendance, although this impact is probably not fully captured due to (a) over-reporting of attendance in school records and (b) the impact of the persistent drought, particularly among the most vulnerable households.

An analysis of attendance rates by wealth quintile indicated an important effect of IGATE among girls in the lowest wealth quintile (i.e. the most marginalised). At the baseline, girls in the lowest wealth quintile in treatment schools had significantly lower average attendance rates than their peers in the same quintile attending control schools. However, the average attendance rate at the lowest wealth quintile has increased in treatment schools, while the average attendance rate for the same quintile in control schools remained stable. As a result, the average attendance rate for the lowest wealth quintile was no longer significantly different between treatment and control schools at the midline. **The results indicate that IGATE is having a positive effect in increasing attendance rates among the most marginalised girls.**

Qualitative data points to positive impacts of PW, MG, VSL, and BEEP on improving attendance since each contributes to lessening or eliminating some key barriers to girls’ schooling. For example, girls who are PW club members described how PW and MG help to make school more girl-friendly, which included addressing GBV issues. District Education Officers (DEOs), school heads, teachers, community members, and parents described how participating in VSL has helped families pay for their daughters’ (and sons’) school-related costs. DEOs, school heads, teachers, community members, parents, and girls recounted that receiving a bicycle through BEEP has not only reduced girls’ travel time from home to school but, perhaps more importantly, has made that daily journey safer for girls.

During FGDs, many PW club members described how their participation in the PW club helped them to stay in school, thus demonstrating the positive impact of this intervention, not only on girls’ attendance but also on retention and enrolment. All the girls who participated in FGDs said they either liked or really liked being members of the PW. These girls talked about liking the club’s sports and arts activities (such as playing ball games, singing, drama, and reciting poems).

Interestingly, when asked “what is the best part of being a member of PW club?” almost all FGD participants considered the “best part” of being a member of PW club learning about the rights of the girl child, menstruation and hygiene, and learning about abuse. For example, in Beitbridge, one girl stated that the “best [part of being in the club] is that if I see anyone being abused I know who tell”, while another said “being taught about abuse and what to do when you are being abused.” Girls in five of the nine FGDs mentioned how MGs support the PW clubs. MGs help girls stay in school by advising girls and/or paying the school fees for some students, giving the girls sanitary pads, buying school uniforms for some students, and/or assisting out-of-school girls to return to school.

Some girls mentioned that they enjoy school more because of the PW. For example, in Gokwe South, Respondent 2 stated: “I like it [PW club] because I feel like going to school because we play ball games and singing and we will be happy. It’s more than what we do when we are home.” This data also speaks to the positive effects of being a PW club member on retention. (It is important to note that the number of girls benefiting from this intervention is limited, since each PW club has a maximum of 50 members.)

Qualitative data also shows the importance of the MG’s efforts in regards to reducing GBV and generally making the school and community safer for girls. For example, when asked “Is anything currently being done in this community to prevent GBV against girls?” girls in one FGD stated:

Yes, and it is being done by the child protection committee (CPC). (R9)

The Mothers’ Group members are part of the CPC so they help each deal with the cases they come across so that their impact is great. (R7)

It is important to note that girls in four of nine FGDs mentioned that their school had a CPC. However, girls in two of those FGD could not describe anything the committee does this may indicate that the CPCs actually are non-functioning at those two schools. CPCs were newly established in some communities at the time of the midline evaluation. A community member in Lupane noted, “We have just set up a Child Protection Committee which looks into the affairs of the children.”

Teachers, community members and parents also described the positive impact of the MGs’ efforts to address GBV at school and within the school community.

* We, as the Mothers Group, have come up with ways of teaching other women and girls about GBV.
* CCWs [Child Care Workers under the CPC within Social Services] are involved in tracking abuse cases. Mothers Groups play a role in counselling girls as well as educating them on how to take care of themselves . . . they are effective because people know that if they are caught on the wrong side of the law they will be answerable. So it really deters violence and abuse. (Nkayi FGD)
* Mothers Groups are making people aware [of GBV] in the community.

The following quotes provide evidence of the positive impact of VSL on increasing attendance and reducing dropout by enabling families to pay school fees. (It is important to note that since IGATE began in 2013, the deteriorating economic situation coupled with the prolonged drought has had severe negative impacts on poor families in remote communities, such as the ones targeted by the project.)

* Had it not been for IGATE VSL, I could not have been able to raise exam registration fees of $150 for my daughter to be able to sit for her O level examinations last year. Thanks to the VSL, my daughter passed her “O” levels and is now in form 5.
* IGATE taught us about VSL and this reduced irregular attendance of girls and boys. If a child is chased away from school for not paying school fees then if his/her mother is part of the VSL group that parent will come and borrow money from others who are also in VSL. She will then rush to go and pay the fees and the child will keep on going to school with others.
* As a member, it really has benefited me. Because of VSL we are able to pay fees for our children and as a community member we were able to get money to buy livestock like cows, donkeys, and goats. But for most of us, it was mainly to pay school fees.
* During the time when the VSL was not yet here, our children would be chased away from school and then stay at home because of not paying fees. Now I can borrow some money now from the VSL and pay fees.
* It’s VSL, because if you get money you can do something or pay children’s school fee. That’s why I’m saying there is no child that is stuck at home—because of this programme.

Stakeholders observe that BEEP has improved girls’ attendance in several ways. Riding bicycles reduces the impact of travelling long distances to and from school. It reduces the fear of violence for girls along the way to school. It also greatly reduces the amount of time spent in transit; thus enabling students, especially girls, to complete their chores before or after school.

* The BEEP intervention has improved school attendance both from those who benefitted and those who expect to benefit. We have a bicycle committee that is managing the use of these bicycles. We raised some funds to enable us to maintain and repair the bicycles. (Religious leader)
* Sometimes you will find out that as a result of longer distance, parents send boys to school instead of girls, because boys are viewed to be physically stronger and they can walk a longer distance. But BEEP brought about equal opportunities between boys and girls because, as a result of these bicycles, girls manage to overcome distance. (School head)
* IGATE gave them bicycles; the ratio is that more girls than boys receive bicycles. These changes are through motivation that girls have now as a result of bicycles. Secondly the problem of late coming to school is not common. These girls are now attending lessons they missed previously . . . absenteeism has dropped.
* I think the most significant change is that more girls were given bicycles than boys because girls are just as important and should be valued. (Girl in PW club)
* As a result of BEEP, girls are now enrolled in schools just as boys are . . . I think the other point is about early marriages, because these girls who were not going to school because of long distances would get married when they are still young but as a result of BEEP, they are going to school and get married when they are bit grown up.
* I think the BEEP project is the most significant because some children never used to attend school regularly because of distance. Some children come from as far as Mlibizi, which is 15 kms away. They can now come to school easily. This also motivates others who did not benefit to attend regularly in case their colleagues might receive bicycles in their absence. Children arrive at school and home early because of these bicycles.

2.4.2 What effects has IGATE had on retention?

Retention is the percentage of a cohort of girls enrolled in the first grade at baseline who are expected to reach a given grade. The retention outcome indicator is measured by the survival rate by grade, and was calculated using the method outlined by the UNESCO Institute for Statistics (UIS)[[10]](#footnote-10) and detailed in the logframe instructions. While enrollment rates are quite high (see following section), there were several missing observations with respect to enrollment, so retention is only calculated on the sub-sample of girls that had enrollment information in both the baseline and midline periods of assessment.

Table 12 shows the grade-specific retention rates both with and without the inclusion of girls who repeated their baseline grade by intervention group. Regardless of whether grade repetition is accounted for or not, the control group has higher retention rates than the (ITT) treatment group for all grades. Overall, there is a large drop in retention rates after Grade 6.

Table 12: Retention rates, by treatment group and grade

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Grade | | | | | | | | | |
| Variable | Group | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Number Enrolled in Baseline | | | | | | | | | | | |
|  | Control | 67 | 77 | 62 | 86 | 86 | 27 | 16 | 26 | 22 | 1 |
|  | Treatment | 119 | 127 | 144 | 121 | 142 | 45 | 27 | 22 | 13 | 7 |
|  | All | 186 | 204 | 206 | 207 | 228 | 72 | 43 | 48 | 35 | 8 |
|  | |  |  |  |  |  |  |  |  |  |  |
| Number Enrolled in Midline | | | | | | | | | | | |
|  | Control | 22 | 80 | 77 | 56 | 85 | 84 | 15 | 27 | 22 | 2 |
|  | Treatment | 44 | 120 | 134 | 132 | 131 | 140 | 23 | 30 | 8 | 4 |
|  | All | 66 | 200 | 211 | 188 | 216 | 224 | 38 | 57 | 30 | 6 |
|  | |  |  |  |  |  |  |  |  |  |  |
| Number Repeating Grade | | | | | | | | | | | |
|  | Control | 20 | 30 | 25 | 23 | 27 | 26 | 15 | 26 | 22 | 1 |
|  | Treatment | 38 | 36 | 41 | 30 | 40 | 39 | 22 | 20 | 6 | 4 |
|  | All | 58 | 66 | 66 | 53 | 67 | 65 | 37 | 46 | 28 | 5 |
|  | |  |  |  |  |  |  |  |  |  |  |
| Retention Rate: Without Accounting for Grade Repetition | | | | | | | | | | | |
|  | Control | 100.0% | 119.4% | 119.4% | 107.8% | 106.6% | 104.1% | 57.8% | 97.6% | 82.6% | 7.5% |
|  | Treatment | 100.0% | 100.8% | 106.4% | 97.5% | 105.6% | 104.1% | 53.2% | 59.1% | 21.5% | 6.6% |
|  | All | 100.0% | 107.5% | 111.2% | 101.5% | 105.9% | 104.1% | 54.9% | 72.8% | 45.5% | 7.8% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Retention Rate: Accounting for Grade Repetition | | | | | | | | | | | |
|  | Control | 100.0% | 106.4% | 117.2% | 103.0% | 93.0% | 89.2% | 0.0% | 0.0% | 0.0% | 0.0% |
|  | Treatment | 100.0% | 87.9% | 94.7% | 90.4% | 78.4% | 69.3% | -190.3% | 389.7% | -1941.9% | 506.3% |
|  | All | 100.0% | 104.7% | 109.7% | 105.2% | 100.7% | 97.9% | 5.5% | 3.9% | 0.4% | 0.0% |

2.4.3 What effects has IGATE had on enrolment?

Using the entire sample, quantitative data show that at there are no significant differences between the enrolment rates of the girls in the control group versus the treatment group in either the baseline or midline (see Table 13 below). This result holds regardless of definition of treatment. Enrolment rates are high across the entire sample.

Table 13: Enrolment rates at baseline and midline, by intervention group and treatment definition

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Observations | |  | Mean Enrolment Rate | | |
| Treatment Definition | Assessment Period |  | Control | Treatment |  | Control | Treatment | T statistic |
| Intent-to-Treat | Baseline |  | 712 | 1,161 |  | 0.999 | 0.997 | 0.919 |
|  | Midline |  | 1,054 | 1,679 |  | 0.954 | 0.959 | -0.741 |
|  |  |  |  |  |  |  |  |  |
| Full-Treatment | Baseline |  | 712 | 897 |  | 0.999 | 0.997 | 0.813 |
|  | Midline |  | 1,054 | 1,346 |  | 0.954 | 0.96 | -0.758 |
|  |  |  |  |  |  |  |  |  |
| VSL Treatment | Baseline |  | 712 | 930 |  | 0.999 | 0.997 | 0.781 |
|  | Midline |  | 1,054 | 1,382 |  | 0.954 | 0.958 | -0.536 |
|  |  |  |  |  |  |  |  |  |
| MG Treatment | Baseline |  | 712 | 786 |  | 0.999 | 0.997 | 0.5 |
|  | Midline |  | 1,054 | 1,188 |  | 0.954 | 0.96 | -0.805 |
|  |  |  |  |  |  |  |  |  |
| PW Treatment | Baseline |  | 712 | 847 |  | 0.999 | 0.995 | 1.209 |
|  | Midline |  | 1,054 | 1,373 |  | 0.954 | 0.956 | -0.327 |
|  |  |  |  |  |  |  |  |  |
| BEEP Treatment | Baseline |  | 712 | 144 |  | 0.999 | 1 | -1 |
|  | Midline |  | 1,054 | 255 |  | 0.954 | 0.961 | -0.527 |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | |

Qualitative data, however, indicate that stakeholders attribute positive effects on girls’ enrolment to MG and VSL. Qualitative evidence suggest that MG activities have had a positive effect on increasing enrolment, reducing the number of girls who dropout, and enabling girls who had dropped out to return to school. MGs were considered to be a strong force. They were able to convince parents to enroll previously unenrolled children, and to convince parents to allow children who had left school to return. The following quotes illustrate the impact of the MG on enrolment (as well as attendance):

* I see the MG helping curb the previously growing number of dropouts (boys becoming herd-boys) and the irregular attendance to school. People’s minds have been enriched to value school more than before IGATE came to our community.
* The MG, the fact that they can approach a parent and convince them to change their mind when it comes to educating their child. The group is able to bring back children to school.
* In the community we just have the Mothers Group, who, when they see that a child has had three to four days missing school, they would approach the parents to find out what is going on.

Girls who are PW club members in Gokwe North talked about helping to encourage girls who had dropped out of school to return.

* We showed them the soaps that we had been given and they were motivated to come to school because of that. (R3)
* We taught them what we had been taught here–that they should not drop out of school, and some of them decided to come to school. (R5)

One of these girls also mentioned the following:

* The IGATE people told parents that if they do not send children to school, they would take action against them. (R9)

With regard to increasing awareness in the community of the importance of education, especially for the girl child, KII and FGD participants described how MGs have also been active in changing attitudes and increasing awareness throughout the community for girls’ education and the importance of education for all youth. The following quotes reveal how MGs are working within communities and their impact:

* Mothers’ Groups are also doing a great job in that regard including encouraging parents and girls to value education. As a result, our attitudes in the community have changed. As the SDC chairperson, I feel proud when I see girls going to school every morning in their numbers, some of them riding their bicycles. It’s encouraging.
* In the Mothers’ Group we meet and try to help the children who are not enrolled at school. We teach the parents about the importance of sending their children to school instead of letting them stay at home. A child should be educated so that he/she has a better future and be able to stand on their own in this world. We tell them that if they do not send their girl children to school, it kills their future because they end up in danger. We try to make them see the importance of educating them.”
* As members of the Mothers’ Group we have also taken advantage of community meetings to educate our community; particularly parents, on the benefits of educating the girl child. I would like to believe that this has accounted for the changing attitudes towards girl child’s education by parents in our community.

Qualitative data also reveals a clear link between the work of the MGs and increased gender equity as perceived by community members. This result in positive effects on enrolment not only for girls but also for some women. For example, FGD participants said the following:

* I think the other thing is the appreciation of sending girls to school. Traditionally they perceived girls’ education as wasting resources, but, owing to teachings from MG, they are sending the girls to school.
* Some men are sending their wives to school. We have a number of married women who are coming back to school. We are seeing some doing well and getting jobs. It’s now a competition. The husband will be working and the wife working as well. So they are sending their wives to Sianzyundu Secondary.

There is also evidence that parents participating in VSL are better able to not only pay school fees but also to cover other school-related costs. These costs are equally important to ensure children stay in school and attend regularly. For example, KII and FGD participants noted the following:

* The VSLs also enable the parents to be able to borrow money and buy their children shoes and other school essentials. When the child is adequately dressed for school the cases of truancy decrease because the child will enjoy going to school.
* The VSL is working well, because ever since we joined, our children are no longer being chased away from school. Whenever we do our monthly contributions, we allow someone to borrow some money, and she may use that money to pay school fees or to buy a school uniform. Also, you can give your own child a dollar so that he/she can buy some zapnax [snack food] during lunchtime. This helps your child so that he/she will not stare at other children as they are eating their own food.
* What changed in our community are children coming to school. Some used to come with no books and some didn’t have blankets in their homes but with VSL some are buying 2-in-1 [blankets]. So the VSL changed things, and some who didn’t have 2-in-1 have them now because of this.

Thus, qualitative findings reveal the positive effects MG and VSL have had on girls’ enrolment. Positive effects attributed to the MG include enabling girls who had dropped out to return to school as well as positively influencing the community to better understand the importance of educating girls. VSL has helped families pay their children’s school-related costs.

2.4.4 Were there any unintended effects?

The only reported unintended—but positive—effect, as noted above, is that some married women have gone back to school. This has resulted from the MG’s efforts to increase the communities’ understanding of the importance of education for girls (and women).

2.4.5 Has IGATE closed the gap in attendance/retention/enrolment among marginalised girls?

As will be discussed, according to the MoP&SE classification of school communities, all girls in the intervention and control group communities are marginalised. Across the indicators, there was a mixed picture in terms of progress in enrolment, attendance, and retention. At baseline, there was no statistical difference in enrolment rates between treatment and control groups, *but by midline, enrolment rates were significantly higher for treatment than for control group girls.* At both baseline and midline, and for both primary and secondary, girls in the control group were significantly more likely than those in the treatment group to have attended school most days it was open. Attrition rates were higher for treatment girls than for control girls.

**Note from the IGATE Project:**

There is need to further nuance school-level attendance data (potentially over-reported) with household data on attendance. It is likely that the full impact of the intervention on attendance is not captured by the analysis of school-level data. The analysis of attendance data reported by households, disaggregated by wealth quintiles, suggests that the project is having a positive effect on attendance among the most marginalised girls (i.e. the lowest wealth quintile).

Additionally, participatory tracking of drop-outs in partnership with MGs indicated 296 cases of drop-out between April and June 2015 only, which were being followed up by them. Although noting the potential errors of participatory tracking, the discrepancy observed between the MG data, enrolment data and present results is considerable and suggests the need to re-examine the data. It is also necessary to take into account the impact of migration on retention, and to what extent the attrition in the sample might be related to older girls moving to urban centers and neighbouring countries in search of opportunities, and if those girls remain in school or not.

2.5 To what extent has IGATE reached and impacted on marginalised girls?

By design, IGATE has reached the most vulnerable girls in Zimbabwe’s poor communities. Target districts were chosen, through a participatory process with MoP&SE, based on their low pass rates, vulnerability due to location of schools, high dropout rates, and high levels of girls’ vulnerability. The 10 districts chosen for IGATE interventions are the poorest nationwide. Five of the ten districts targeted by IGATE are areas of high migration (Mangwe, Beitbridge, Lupane, Nkayi and Chivi), where education becomes vulnerable to transient teachers and families. IGATE has specifically targeted these students and focused on increasing their educational attainment.

IGATE target schools are those classified by the MoP&SE as Level 3 schools serving the most vulnerable, poor communities, many of which are rural. (Level 3 primary schools are known as P3 schools and secondary school are S3. Level 1 schools are non-governmental (private) schools with high school fees. Level 2 schools are both government and private schools in middle income communities, usually in high density suburbs and peri-urban areas.) P3 schools have a high drop-out rate of 37 percent. Girls (and boys) in poor remote schools are also marginalised with regard to learning outcomes. This is due in no small way to a high rate of teacher turn-over and, thus the required use of temporary untrained teachers. (One World Vision staff member estimated that only 20 percent of teachers in IGATE schools are trained.)

Interventions, such as VSL, MG, and PW, focus on supporting the most vulnerable girls within their communities.

Monitoring results, anecdotal evidence, and midline data analysis suggest that the most vulnerable households and girls were most positively affected by the IGATE programme, on being able to pay school fees, having access to food, and reducing high dropout rates.

The following six tables present IGATE’s direct beneficiaries (Table 13), other beneficiaries (Table 14), target groups by schools (Table 15), target groups by age (Table 16), target groups by social group (Table 17), and target groups by school status (Table 18).

Table 14: Direct beneficiaries

|  |  |  |  |
| --- | --- | --- | --- |
| **Beneficiary type** | **Total project number** | **Total number of girls targeted for learning outcomes that the project has reached by midline** | **Comments** |
| **Direct learning beneficiaries (girls)**  48,773 marginalised girls | 60,967 marginalised girls | 37,356 marginalised girls (This number is based on the 75% coverage of some models due to resource constraints, e.g., VSL groups cover 75% of school communities). | The discrepancy between the figure in the outcomes spreadsheet and this figure is because schools start with Grade 0 (reception) and these girls were not eligible for learning tests. |

Table 15: Other beneficiaries

|  |  |  |
| --- | --- | --- |
| **Beneficiary type** | **Number** | **Comments** |
| **Learning beneficiaries (boys)** | 0 |  |
| **Broader student beneficiaries (boys)** | 3,600 (estimated) | Boys are participating in BEEP, PW, and CSGE (30% of 12,000). (From Year 3 onwards some boys will also benefit from Male Champions and Happy Readers activities.) |
| **Broader student beneficiaries (girls)** | 101,448 marginalised girls | The total number of marginalised girls who could be affected by IGATE activities, if they take them up, as per impact sheet. This is the total enrolment of girls in P3 and S3 schools. |
| **Teacher beneficiaries** | 1,847 | 446 teachers were trained to be PW matrons (one matron for each school). These teachers were trained over 3 days (8 hours per day) on how to establish and run PW clubs.  1,401 teachers were also trained on school development planning.  (There is a plan to train 900 teachers through the Happy Readers literacy activities.) |
| **Broader community beneficiaries (adults)** | 30,400  Breakdown by intervention  VSL: 20,557  MG: 7,762  PW: 446  SDC: 4,691  CSGE: 30,341 | Figures are from the data base, disaggregated per model. Some adults participate in more than one of the interventions. For example, MG people are also part of VSL, so there will be some double counting. |

Table 16: Target groups – by school

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Project definition of target group** | **Number targeted through project interventions** | **Sample size of target group at midline** |
| **School Age** |
| Lower primary | Grade 1-7 | 57,310 (94%) | 2,800 (94%) |
| Upper primary |  |  |  |
| Lower secondary | Form 1 to 2 | 3,657 (6%) | 200 (6%) |
| Upper secondary |  |  |  |
| **Total:** |  | 60,967 | [This number should be the same across Tables 13, 14, 15 & 16] |

Table 17: Target groups – by age

|  |  |  |  |
| --- | --- | --- | --- |
| **Age Groups** | **Project definition of target group** | **Number targeted through project interventions** | **Sample size of target group at midline** |
| < 6 years old | 2% at baseline | 1,219 | 9 |
| 6 – 8 years old | 30% at baseline | 18,290 | 470 |
| 9 – 11 years old | 38% at baseline | 23,162 | 1290 |
| 12 – 13 years old | 20% at baseline | 12,193 | 930 |
| 14 – 15 years old | 10% at baseline | 8,092 | 796 |
| 16 – 19 years old | 0% | 0 | 316 |
| > 19 years old |  |  | 0 |
| **Total:** |  | **62,956** | [This number should be the same across Tables 13, 14, 15 & 16] |

Table 18: Target groups – by social group

| **Social Groups** | **Project definition of target group** | **Number targeted through project interventions** | **Sample size of target group at midline** |
| --- | --- | --- | --- |
| Disabled girls | ✓  At baseline, 9% of girls have some form of disability. | 5,480 |  |
| Orphaned girls | ✓  At baseline, 24% of girls are orphaned (one or two parents dead) | 14,630 |  |
| Pastoralist girls |  |  |  |
| Displaced girls |  |  |  |
| Slum-dwellers |  |  |  |
| Child labourers\* |  |  |  |
| Poor girls\*\* | ✓ | 49,857 |  |
| Disadvantaged caste/ethnic minority |  |  |  |
| Affected by HIV/AIDS |  |  |  |
| Young mothers/expecting |  |  |  |
| Street Children |  |  |  |
| **Total:** |  | **60,967** | [This number should be the same across Tables 13, 14, 15 & 16] |

\* Not explicitly child labourer. IGATE addresses issues of household chores that severely hinder girls’ time for reading and studying.

\*\* Marginalisation is the risk of drop out due to food insecurity, being overage, religious affiliation (apostolic or evangelical), low school attendance, family composition/relation to household.

Table 19: Target groups – by school status

|  |  |  |  |
| --- | --- | --- | --- |
| **Educational sub-groups** | **Project definition of target group** | **Number targeted through project interventions** | **Sample size of target group at midline** |
| Out-of-school girls: have never attended school | ✓ | 271 (Baseline Sample proportion to population) | 0 (Most out-of-school girls have migrated.) |
| Out-of-school girls: have attended school, but dropped out |  |  |  |
| Girls in-school | ✓ | 60,965 |  |
| **Total:** |  | **60,967** | [This number should be the same across Tables 13, 14, 15 & 16] |

## 2.6 What has worked, why and with what effects?

2.6.1 How has the project performed against its target outputs?

As presented in Table 20 below, IGATE has met or exceeded almost all of its midline target outputs, across all indicators in the logframe. These target outputs include the following:

* community engagement with development actors;
* households using VSL funds to start IGAs and using that income to support girls’ education;
* increased MG and other participants’ knowledge, awareness and skills on gender issues, and following up on GBV and other issues;
* BEEP participants’ use of bicycles to go to and from school;
* SDCs developing work plans and facilitating gender-equitable practices in schools; and
* the formation and functioning of PW clubs.

In most cases, these targets were exceeded by 22 percentage points or more.

IGATE did not meet the following midline target outputs:

* Number of marginalised girls who have stayed in school through the life cycle of the project (reached 27,532 marginalised girls, which was 3,311 below planned target);
* Proportion of schools with functional abuse reporting mechanisms.

Table 20: Project performance against targets in logframe outputs

|  |  |  |  |
| --- | --- | --- | --- |
| **Output and Output indicators** | **Midline Target (planned)** | **Midline Target (achieved)** | **Variance between achieved & planned targets** |
| **Outcome:** 1 million marginalised girls across 22 countries able to complete a full cycle of education and demonstrate learning | | | |
| 1. Number of marginalised girls who have stayed in school through the life cycle of the project | 30,843 girls  (27,846 primary girls, 2,502 secondary girls, and 135 re-enrolled girls) | 27,532 girls  (23,499 primary and 4,033 secondary) | 3,311 below planned target |
| 2. Number of marginalised girls supported by GEC with improved learning outcomes | 24,387 girls  (22,378 primary girls, 2,009 secondary girls) | Both treatment and control group girls’ reading and math scores improved from baseline to midline. Controlling for various household and girl characteristics, girls exposed to the treatment as a whole did not show statistically significant gains over the control group in literacy or numeracy. For individual interventions, girls exposed to PW did show statistically significant gains on three math subtests and the math total. Girls exposed to MG and VSL interventions did not show any statistically significant gains over control girls. |  |
| 3. Additional funds secured during the life of the project alongside Department for International Development (DFID) GEC funds to support the marginalised girls | £315,354:  £218,556 (in time contributions provided by SDC members and MGs), and £11,413 in other community in-kind and cash contributions to support initiatives for girls' education | £229,969 total achieved by midline (73% of target) | £85,385 below planned target midline |
| 4. Project has established mechanisms to enable marginalised girls to complete a full cycle of education | Communities in 200 target schools' catchment areas have functional initiatives and have established partnerships to support girls' education | Communities in 258 target schools’ catchment areas have established at least one functional initiative | Project exceeded target by 29% (58 schools |
| 5. Number of communities reporting increased engagement with significant development actors (State, Private Sector, and other Civil Society Organisations) on barriers to girls’ education | 25% of the communities conducted successful advocacy initiatives for girls’ education | 47% | Caregivers reporting engagement with organisations that make it easier for girls to go to school |
| **Output 1: Increased Household economic capacity to support and prioritise girls' education** | | | |
| 1.1 Percentage of households using VSL funds to start IGAs | 20% above baseline (33% of surveyed households); so target is 40% | 50% | Exceeded target by 10 percentage points |
| 1.2 Households using income generated as a result of VSLs to invest in education for girls | 20% of HHs involved in the project using VSL to support girls' education | 55% | Exceeded target by 35 percentage points |
| 1.3 Percentage of households with adolescent girls investing in girls sanitary requirements (VSL households) | No target set | 34% | N/A |
| **Output 2: Target communities are actively supportive of equal education opportunities through Mothers Groups, School Development Committees, local leaders and girls themselves** | | | |
| 2.1 Participants of MGs, SDCs and local leaders increased their knowledge, awareness and skills on gender specific issues | 50% of the mothers , SDC members and traditional/religious leaders demonstrate increased knowledge, awareness and skills on gender issues | 91% | Exceeded target by 41 percentage points |
| 2.2 MGs, traditional leaders and church leaders, following up on truancy, drop-out, GBV and leading initiatives for school improvement | 50% of the schools (233) have active MGs traditional leaders and church leaders, following up on cases of truancy, drop-out and GBV and leading initiatives for school improvement | 76% | Exceeded target by 26 percentage points |
| 2.3 Percentage of IGATE bicycle beneficiary girls who cycled to and/or from school within the week of the survey (5 school days) the survey | No target set | 85% | N/A |
| **Output 3: SDCs have the capacity to lead participatory management of schools** | | | |
| 3.1 Initiatives introduced by SDCs to address issues affecting girls’ education | 25% of SDCs implementing initiatives in the workplan in partnership with Mothers Groups to address issues related to girls' education | 75% | Exceeded target by 50 percentage points |
| 3.2 SDC following-up on gender equitable practices within the school | 50% of schools (234) with plans have determined actions to implement a code of conduct and gender equitable practices in the school, with active follow up from SDCs | 88% | Exceeded target by 38 percentage points |
| 3.3 |  |  |  |
| **Output 4: Target communities are actively improving the learning environment for girls** | | | |
| 4.1 Decrease in the percentage of girls who point out negative aspects of school | 30% decrease in the percentage of girls who point out negative aspects of school (8 percentage point decrease to 16% of girls) | N/A. The baseline and midline survey questions were not identical; the decrease could not be tracked. |  |
| 4.2 Proportion of schools with functional abuse reporting mechanisms | 50% of schools have functional reporting mechanisms for abuse | 30% of head teachers who stated someone had notified the Child Protection Committee of any abuse cases in past 6 months | Below target by 20 percentage points |
| 4.3 |  |  |  |
| **Output 5: All schools provide an opportunity for girls’ personal development through the PW model** | | | |
| 5.1 Increased percentage of girls who believe that they are listened to and able to participate at home, school and peer groups (defined per average score in Youth Leadership Index scores) | 15% (8.7) increase from the baseline to 67 | N/A. Youth Leadership Index was not conducted at midline because scores at baseline were very high, and mush higher than expected. Therefore, the required level of increase is not possible to achieve given these results. | N/A |
| 5.2 Proportion of schools with active power within clubs | 50% of schools have active PW clubs | 81% | Exceeded target by 31 percentage points |
| 5.3 Percentage of school girls form Happy Readers targeted schools, who report increased reading sessions to a teacher or caregiver/volunteer |  | N/A because Happy Readers was not yet implemented at midline. |  |

**Influence and Engagement Matrix findings‏**

This tool was intended to measure Outcome Indicator 5: “Number of communities reporting increased engagement with significant development actors (State, Private Sector, and other Civil Society Organisations) on barriers to girls’ education”. The primary purpose of this indicator is to check the influence that IGATE has had through its work, especially its advocacy activities designed to build the capacity of development actors to engage effectively and collaboratively with the community. The Influence and Engagement Matrix is a qualitative tool used with a group of stakeholders to determine (a) which development actors (government and non-government, local and international) are working in the community; and (b) the extent to which stakeholders perceive that actors, particularly significant development actors, are engaging collaboratively with community members.

The matrix consists of 11 responses that are given a score from 0 to 10. The lowest score (0), indicates “No discussions. No meetings.” A score of 0 to 3 indicates community members feel the actor is neither listening to their concerns and/or ideas nor facilitating a real dialogue. A score of 4 to 9 indicates varying levels of dialogue and engagement (4 indicates “the development actor asks the community what they think and listens to them”; 9 indicates “Regular meetings. Minutes show the development actor is taking action because the community shared their ideas and needs.”) The highest score, 10, indicates “There is policy change or change in practice because of the community’s input.”

During midline data collection, the Influence and Engagement Matrix was conducted as part of the 20 FGD with trained and untrained parents/head of household/caregivers. This activity was completed correctly in 12 FGDs.

In most FGDs, the one or two development actors identified as “significant” were ranked 0 to 2 (indicating no or very low engagement with the community). These were individual people (chief or village head), UNICEF, Red Cross, Ministry of Health, and the School Improvement Grant (SIG).

The vast majority of significant development actors in all the FGD fall within the 3 to 9 category which indicates that these community members feel that most of the important development actors are at the very least asking for community members’ opinions if not engaging in effective dialogue with them.

The 59 significant development actors identified by the community members were ranked as follows. Government representatives and their ranking are also indicated with a number in brackets, if given that ranking in more than one FGD:

0 ranking: 4 ( 7%)

1 ranking: 7 (12%) - Ministry of Health (2), Ministry of Local Government

2 ranking: 9 (15%) - MoP&SE Basic Education Assistance Module (BEAM),

School Improvement Grant (SIG) (2), District Development Fund

3 ranking: 12 (20%) - BEAM (3)

4 ranking: 5 ( 8%) - MoP&SE, Police, Case Care Worker, SIG

5 ranking: 7 (12%) - BEAM

6 ranking: 6 (10%) - Village Health Worker

7 ranking: 4 ( 7%) - Police

8 ranking: 2 ( 3%)

9 ranking: 3 ( 5%) - Village Head

10 ranking: 0

As a sub-analysis of findings, World Vision and/or IGATE was identified as a significant development actor in 10 of 12 FGD and was ranked 4 (by two groups), 5 (by two groups), 6 (by three groups), 7 (by one group), 8 (by one group) and 9 (by one group). Average ranking was 5.75 out of 10.

These findings show that community members perceive that almost all the significant development actors in their community are asking for their opinions, and although one-third of the significant development actors falling were at the lowest ranking within the 3 to 9 ranking, 23 percent were ranked highly (from 7 to 9).

Since the Influence and Engagement Matrix is a qualitative tool, we recommend a change in the wording of the indicator to provide some evidence on the level of engagement, rather than the number of communities. Findings from the Influence and Engagement Matrix activities during midline data collection provide valuable insights into how community members perceive the interaction between themselves and significant development actors working in their communities. Since this qualitative tool was used in very small percentage of the IGATE communities, these findings cannot be generalized.

**Key drivers behind the delivery of your outputs**

Perhaps the most critical driver is the commitment and leadership of the individuals who are trained to implement the project activities. IGATE was designed with the aim of enabling communities to be self-reliant, to have a high-level of buy-in, and to increase the sustainability of the interventions once the project has ended. As such, IGATE's implementing partners train the actors (i.e., school staff, teachers, parents, community and religious leaders, civil servants) to implement project activities. This approach relies heavily on the leadership and commitment of the trained actors, to implement the interventions as intended, with on-going support and M&E by IGATE staff. For example, a teacher is trained as a matron (or patron in the case of male teachers at schools with no female teachers) to lead the PW club. As one World Vision staff member noted, the effectiveness of a PW club depends upon “the innovativeness and the willingness of the trained matron to do the activity.” This statement also applies to any individuals trained by IGATE to implement project activities.

Other critical drivers to achieve targets include:

* the effectiveness of training to ensure trainees are able to carry out the activities,
* the support provided after the training has been completed and,
* M&E, which allows for responsiveness as circumstances change.

Given the number of IGATE partners, a key driver is also the effectiveness of relationships between and among IGATE partners (including administratively) as well as relationships between the partners and key stakeholders.

For a holistic project such as IGATE to be successful, another driver is the ability to raise awareness throughout the entire community on the importance of girls’ education and how all stakeholders can support it. A teacher in Chivi described this well: “[IGATE meetings] are helping to prevent GBV because people don’t want to be talked about at a gathering, so after the lessons, people do not do it. They go back home and they avoid this GBV because they know the small children will talk about the violence and people will know.”

Key barriers to the delivery of outputs

Perhaps the greatest barriers to achieving IGATE targets are the widely-held negative attitudes toward girls and their education. In particular, GBV hinders girls’ educational opportunities and experiences, sometimes severely.

Addressing difficult and sensitive issues such as GBV is a major challenge. Some people deny the existence of GBV against girls. One adult in Gokwe North said, “Nothing is being done [about GBV] because there is no GBV.” A teacher in Lupane noted that people need training on “skills on approaching people from different backgrounds, because sometimes we end up having unintended clashes with some community member because of these [GBV] issues. We do not want this to happen.”

Discriminatory practices related to victim-blaming were also evident in these quotes:

* We encourage school children [girls] not to be involved with other people’s husbands. (Adult in Gokwe North)
* If the child does not come to you and tell you on their own that they were raped, it becomes a problem. If they do tell you, you can act on it. It depends on the child. One child will tell you as soon as it happened, because they didn’t like it, and the other one will keep it to themselves because they liked what happened to them. (Mother in Chivi)
* I think, all along, people were hesitant to report cases [of abuse of school girls] because of fear of blame and victimization. (Teacher in Binga)

Many people, especially women, are afraid to approach and try to stop older men in the community from abusing school girls. For example:

* When asked, “Is anything being done to stop GBV against girls?” a woman in Beitbridge said, “It is difficult to even get the courage to approach that person. Culturally it is difficult to just approach a person and just advise them, especially the older people.”
* FGD participants in Binga discussed instances of 60-year-old men having sexual relationships with 16-year-old schoolgirls, and a woman of 50 years entering into relationships with [boys who are] 15, 16 year olds.” When asked, “is anything being done to stop it?”, they replied in chorus, “Nothing is being done”. One person added, “We are afraid to stop it.”
* A teacher in Chivi said, “the problem which we have noticed is that they are afraid of coming out and reporting issues [of GBV]. They are afraid. They are afraid to talk to the parent involved, they are just afraid of themselves. I think the leaders concerned must be given the chance to go and report this to any responsible authorities without fear.
* A church leader in Chivi noted, “it is difficult to say there is something in place meant to prevent GBV. People are afraid of one another, so they do mind their own business unless cases of violence are reported to police or the child has opened up about it.

Poverty is also a key barrier to delivery of outputs related to increasing girls’ enrolment and retention. This is also true in relation to the VSL model that requires poor community members to save even the smallest amount of money. (IGATE does not provide seed money to VSL groups.) This can be especially difficult for people living in the poorest, most marginalised districts such as Binga, as well as in districts gravely affected by drought. The DEO in Mangwe described the dire situation in his district as follows:

* We are now experiencing another trend where, due to drought, people are now saying they can’t pay fees if their child has not eaten anything. [They say] “with this $5 I would rather go and buy 5 kgs of mealie meal than pay for school.”

This extreme poverty has a particularly negative impact on the potential for VSLs to be formed and run effectively, as well as on girls and boys attending school.

Other barriers to delivery of output are related to structural and/or administrative issues. One of the greatest challenges World Vision staff identified for PW clubs was the retention of the matrons due to high rate of teacher turn-over, particularly for temporary or leave teachers (i.e., who are untrained). One teacher trained to be a PW matron for one year was no longer at the school the following year. Subsequently, this challenge has been addressed through on-site training, whereby a teacher is trained to be a matron by IGATE staff as necessary.

Another challenge for PW club, is the restricted amount of time when the PW club can function. The MOE limits clubs functioning to the third term only (i.e., September to December) since this is the hottest time of the year and children should be inside. The school leadership and the PW matron have to fit the club into these school plans. One IGATE staff remarked, “We didn’t have much control over the matrons. Remember, they have work plans and everything, so we’re trying to say, “fit these clubs into your plans.”

Fitting IGATE interventions into existing plans can also be a challenge at the district level, where each Rural Development Council (RDC) has a five-year plan. One Binga RDC five-year plan prioritised infrastructure development such as building and refurnishing schools in their five-year plan. When IGATE staff began to discuss project activities with the RDC, there was resistance because the IGATE interventions did not align with the RDC's plan. After many discussions with IGATE staff, the RDC accepted the implementation of the IGATE project. This acceptance grew as the RDC and community saw positive results of IGATE interventions.

Other implementation delays were related to administrative issues. For example, SNV had to delay training SDCs until the MoP&SE approved the SDC manuals. Delays in the transfer of funds from World Vision to Happy Readers and to Male Champions delayed implementation of those interventions.

2.6.2 Effects of interventions on barriers to girls’ educational outcomes

Table 21 below summarizes the barriers to education outcomes for this population of marginalised girls, and the IGATE interventions designed to address these barriers.

Table 21: Summary of barriers to education outcomes and types of project interventions

|  | **Evidence of barrier** | | **Effects on outcomes** | | | **List the type of project intervention that addresses this barrier** |
| --- | --- | --- | --- | --- | --- | --- |
| **Potential barrier** | **Evidenced at baseline?** | **Evidenced at midline?** | **Attendance?** | **Learning?** | |  |
| **ECONOMIC FACTORS** |  | | | | |  |
| Poverty | ✓ | ✓ | ✓ | ✓ | | VSL |
| Cost of school (fees, books, uniforms, etc.) | ✓ | ✓ | ✓ | ✓ | | VSL\* |
| Domestic chores and livelihood activities | ✓ | ✓ | ✓ | ✓ | | VSL, MG |
| Migration | ✓ | ✓ | ✓ | ✓ | | VSL, MG, PW |
| Being an orphan | ✓ | ✓ | ✓ | ✓ | | PW, MG, VSL |
| **SCHOOL-BASED FACTORS** |  | | | | |  |
| Poor quality of education and teaching | ✓ |  |  |  | | CSGE,  Happy Readers (not implemented as of midline evaluation) |
| Long distance to school | ✓ | ✓ | ✓ | ✓ | | BEEP (limited implementation as of midline evaluation) |
| Lack of adequate facilities | ✓ |  |  |  | |  |
| Inadequately trained teachers |  |  |  |  | |  |
| Inadequate teaching or learning materials | ✓ |  |  |  | | Happy Readers (not implemented as of midline evaluation) |
| Under resourcing (class size) |  |  |  |  | |  |
| Lack of female teachers |  |  |  |  | |  |
| Lack of adequate sanitation facilities | ✓ | ✓ | ✓ | ✓ | | SDC, MG |
| Availability of schools |  |  |  |  | |  |
| Teachers treat boys and girls differently |  |  |  |  | |  |
| Teacher absenteeism |  |  |  |  | |  |
| Shortage of teachers |  |  |  |  | |  |
| Corporeal punishment | ✓ |  | ✓ | ✓ | |  |
| Language of instruction not mother tongue |  |  |  |  | |  |
| Poor school management |  |  |  |  | |  |
| Poor governance of girls' education |  |  |  |  | |  |
| Other school based factors |  |  |  |  | |  |
| **ATTITUDES AND SUPPORT** |  | | | | |  |
| Negative attitudes towards girls' education | ✓ | ✓ |  |  | | MG, PW, Male Champions (not implemented as of midline data collection) |
| Lack of family support and parental involvement girls' education | ✓ | ✓ |  |  | | MG, Male Champions, Channels of Hope |
| Negative perceptions of the relevance of education | ✓ | ✓ |  |  | | MG, PW, Male Champions, Channels of Hope |
| Social exclusion |  |  |  |  | |  |
| **VIOLENCE AND SAFETY** |  | | | |  | |
| Insecurity and fear of violence | ✓ | ✓ |  |  | | MG, PW, SDC, Male Champions |
| Lack of safety or harassment at school (GBV) | ✓ | ✓ | ✓ | ✓ | | MG, PW, SDC |
| Sexual harassment and violence | ✓ | ✓ | ✓ | ✓ | | MG, PW |
| Unsafe journey to school | ✓ | ✓ | ✓ | ✓ | | MG, Male Champions |
| **PERSONAL FACTORS** |  |  |  |  | |  |
| Early pregnancy | ✓ | ✓ | ✓ | ✓ | | MG, PW, MC, Channels of Hope |
| Early or forced marriage | ✓ | ✓ | ✓ | ✓ | | MG, PW, MC, Channels of Hope |
| Issues around general and sexual health | ✓ | ✓ | ✓ | ✓ | | MG, PW |
| Issues around disability | ✓ |  |  |  | |  |
| Lack of motivation, confidence, aspirations |  | ✓ | ✓ | ✓ | | PW, MG |
| Menstruation | ✓ | ✓ | ✓ | ✓ | | MG, PW, SDC |
| Lack of safety or harassment at home or in the community (GBV) | ✓ | ✓ | ✓ | ✓ | | MG, PW, SDC, Male Champions(?), Channels of Hope (?) |
| Lack of role models | ✓ |  |  |  | | PW, MG |
| **OTHER** |  | | | |  | |
| Low levels of education in family |  |  |  |  | |  |
| Religious affiliation  (Apostolic or Evangelical) | ✓ | ✓ | ✓ | ✓ | | Channels of Hope |

In Zimbabwe many barriers to girls’ attendance and learning identified at baseline, not surprisingly were also evident at midline. Barriers to girls’ education include economic factors, school-based factors, attitudes and support, violence and safety, and personal factors. In this section, each factor is discussed separately. However, multiple, if not all of those factors, may hinder a girl’s ability to go to, stay in, and do well in school. The effects of IGATE interventions to address these barriers are also presented and summarized in Table 21.

**Economic factors:**

Poverty and vulnerability at the household-level (including being an orphan) is the key economic barrier to girls’ education in IGATE districts. Girls’ migration, commonly resulting from household-level poverty, as well as excessive household chores also hinder girls’ education.

One of the greatest barriers to school attendance and learning achievement for girls living in these poor communities is the inability of her family to pay for school fees and other school-related costs. The full sample of treatment and control girls was from marginalised and disadvantaged backgrounds. Hence, while “wealth” effects were estimated, this is a relative term. None of the girls was from a “wealthy” family.

Of the 103 girls who dropped out of school, 77 percent (43 full treatment and 36 control girls) said it was because the family couldn’t afford to send her to school.[[11]](#footnote-11) This finding was underscored by community leaders and other adults. A Mangwe leader noted how “the [MG] programme is running well but there are a number of challenges, most significantly, finance. People will tell you that they really have the will to send their children to school, but when it comes to payment, that’s what makes the children lag behind.” An adult in a Chivi FGD noted, “money is normally the reason that stops girls from finishing Grade seven. They are being sent home because of non-payment of fees. Very often, these girls are clever but there is no money. The family often resorts to farming, but that doesn’t always bring in money.” Another Mangwe community leader spoke about overage girls being enrolled in Grade 1: “I remember there are some we looked for who were well above general entry age for Grade 1. It is still a challenge. We organise for them to go, and then the parents send them to school, but then it becomes financially straining for them and they end up as drop-outs.”

Being orphaned (losing one or both parents) often results in children living with elderly extended family members in poor households. A Mangwe headmaster noted, “mostly they [girls] drop out because their parents are poor and/or guardians are frail or old and they cannot pay levies for them.”

Findings from the midline evaluation provide insights into girls’ migration to larger urban centers in Zimbabwe and to bordering countries, such as South Africa. A girl from the Gokwe North PW club noted “some [girls] just drop out and leave for the big cities like Bulawayo and Harare, but we don’t know what they will be doing there.” If a school girl migrates within Zimbabwe with unpaid school fees, she will not be able to enroll in another school. A community member in Insiza described how girls migrate: “Those with debts, they won't be given transfer letters from the previous school. The school head will send a message that this transferring girl has outstanding fees and should not be enrolled at the new school. So they are sent back to the old school to clear their dues first.” When asked “Does this cause girls to eventually drop out of school?” the community leader replied, “Yes, it does.”

Girls’ migration to South Africa was also mentioned during the midline evaluation. In Chivi a girl who is also a PW club member described how “It’s happening a lot, especially in the situation where the parents are separated. Perhaps the girl would be staying with people who are mistreating her, so the girls leave to go to South Africa . . . [They migrate] when they are about 16 years to 17 years.” A community leader in Mangwe commented, “In most cases, when it comes to migrating, the child just follows the decision made at home, and the community might not know how and why it happened.” A Mangwe headmaster added “A good number of them [girls who have dropped out] are at their homes but some of them, of course, have crossed the border to the neighbouring countries to look for work.”

VSL and MG members work collaboratively to reduce household-level economic barriers to girls’ schooling. As noted earlier, shareholders attributed increased attendance and reduced drop-out to VSL in that it enabled families to pay school fees (see section 2). VSL was attributed with creating strong change in regards to families’ ability to pay school fees as well as to purchase food or farming equipment/supplies and was closely associated with MG activities.

**Note from the IGATE Project**

A large study was conducted in October 2015 by the DFID-funded Emergency Cash - First Response to Drought-Affected Communities project[[12]](#footnote-12)in seven out of the 10 districts[[13]](#footnote-13) covered by IGATE, reaching 3,360 households. The findings indicated that up to 25% of the children[[14]](#footnote-14) were not attending school regularly in five of these districts (including three of the districts with the largest school coverage under IGATE).

As a result of agricultural losses, households were spending on average 83% of their income to buy staple foods, severely affecting their ability to pay school fees in a timely manner. According to the study, 32% of the households reduced their expenditure on health and 36% in education as a coping strategy, while 20% sent children to perform casual labour as a means of raising additional income.

Furthermore, the study found that 25% of the households were limiting food consumption to one cereal-based meal/day, while 47% were able to eat two cereal-based meals/day; 37% of the respondents had a below-minimum accepted diet. Anecdotal reports of the impact of poor nutritional levels on children’s attendance, attention and ability to learn were obtained from IGATE project participants since early 2015, and included in IGATE’s reports as well.

MG activities related to reducing economic barriers to girls’ education include paying school fees as well as providing girls with uniforms and menstrual pads. A Chivi community leader described how “as the MG, we have asked each member to contribute $1 every month. When we have raised enough we buy cloth and we have a tailor who has agreed to sew uniforms for us, then we give to these children . . . For now, we have only given [uniforms] to girls. And now we have moved further to put in place sanitary pads for the grown-up girls, should they start their menstruation while at school . . . once we have raised enough money we will go to town to buy these.” According to girls who are PW club members in Chivi, girls who had dropped out of school were able to return because of the assistance they received from MGs. One stated, “[for girls who had dropped out], school fees are now being paid by the Mothers Group.” Another noted “there were some [girls] who were not coming to school because they did not have uniforms but the Mothers Group bought them some.”

Household chores were also noted to be a barrier to girls’ education. While none of the 103 girls who stopped attending school said they did so because of her obligations at home, there is evidence that household chores are a heavy burden for some school girls. Girls in a PW club in Insiza described the effect household chores have on their ability to complete their homework:

* My parents say I must do all my chores before I can start working on my schoolwork. (R10)
* My chores prevent me from doing my schoolwork. (R2)
* My parents say, ‘First do chores before you do homework.” (R4)
* Teachers give us homework, but we fail to do it, then the teachers beat us because the work they gave us to do is not done. (R5)
* I finish chores late, so by the time I am done with chores, I am too tired and I have no desire to do my homework. (R8)
* I have no light to write homework at night. (R5)
* Adults send me around too much to do household chores until its dark. (R10)

Girls from the PW club in Binga described some of the household chores they do as abusive. One said it is abusive “when a 9-year-old girl carries 20 litre buckets” whereas another replied “10 year olds carry a 20 kg bucket of maize to the grinding mill.”

One of the aims of IGATE, through MG activities, is to encourage parents to reduce the extent of household chores for girls since a girls’ heavy workload negatively affects her schooling. Some adults have made changes in their households in regards to chores. One stated, “what has changed about our family is that both boys and girls see each other equally now. There is now no demarcation between the chores done by boys and the chores done by girls. They are now doing the same things; a girl child now knows that she has the same power as boys.” In Mberengwa, a parent/caregiver (not trained on any IGATE interventions) noted: “That which is being done by IGATE is helping us. The mistress who attended the IGATE workshop gave us some feedback. We were taught that we are not supposed to wake up our children at 3 a.m. and load her with household duties. A child should have enough time to do her schoolwork and is supposed to go to school with a mind that is free so that she will be able to learn.”

Qualitative data did not provide sufficient evidence to clearly trace the impact at midline of MG efforts to reduce girls’ household chores. From the girls’ perspective, there was no clear pattern of any change to the amount of chores they needed to complete. Some girls reported that chores have increased, while others said theirs decreased, or stayed the same. Multiple reasons for changes were given, most of which were due to the make-up of their family, including changes in with whom a girl was living.

However, there is evidence regarding changes to girls’ and boys’ chores that stakeholders attributed to IGATE. Girls in the Gokwe North PW club said:

* Boys used to herd cattle alone but now we herd cattle together. It now does not matter whether it is a boy or a girl. (R3)
* Last year we used to bring firewood to school but now we are no longer bringing firewood. (R10)
* When “Power” came things changed. (R5)
* We now share chores. My mother discovered that I was doing more chores whilst the boy is just sitting so she divided the chores more equally. (R3)
* The World Vision people also said we should share chores . . . after we were told [this] we went and told our parents. (R2)

**School-based factors:**

School-based factors that can hinder girls’ schooling are long distances to and from school that can be unsafe, inadequate sanitary conditions (lack of safe toilets and water for girls, especially important when girls are menstruating), corporeal punishment, and school-related GBV.

Some girls miss school or are routinely late for school due to the long distances they must travel from home to school. They also face risks related to unsafe travel. A Mberengwa community leader described how “there are some children who have to walk an average of 20 kms daily to and from school. They wake up very early, walk long distances to school and by the time they get to school they are too tired to concentrate. In the evening they walk that same distance—and sometimes it’s dangerous too.”

As noted above, BEEP was added to IGATE after the project began to address issues related to long distances and unsafe travel to and from school for girls. At the time of the midline evaluation, BEEP had been implemented in one district (Binga). The majority of stakeholder groups in Binga discussed BEEP positively. It was a well-known intervention even in communities that had not yet received any bicycles. Stakeholders attributed changes in attendance, a reduction in tardiness, girls’ improved time management, and greater gender equity to the provision and use of bicycles for girls.

As indicated in the logframe, 85 percent of girls participating in BEEP had cycled to and from school during the five days preceding data collection.

Substantial numbers of girls stated that the toilets were not satisfactory at school, but there was no clear link to enrolment and attendance rates. When asked whether their school had any ongoing measures to support marginalised girls, almost 60 percent of head teachers at treatment schools and 40 percent of head teachers at control schools reported having such support mechanisms. A community leader in Gokwe South described one such mechanism that had just been introduced through IGATE. The leader said “I was selected to help with school development to ensure that they are enough squat holes and toilets at the school that will cater for the number of children who are enrolled at the school. As the chairman of community leaders, I am supposed to see to it that each of the community leaders in this area has erected a hole each, then IGATE people will then help us from there . . . The programme started last month, that’s when the issue of toilets was introduced to me.”

Baseline and midline qualitative data provide evidence of corporeal punishment used on students in schools. During midline data collection, an Insiza member of the PW club stated, “When teachers are disciplining us they are not allowed to beat us on the buttocks. They can only beat us on our shins and hands.” In Mberengwa, girls in the PW club described how “boys are given corporeal punishment at school, 5 strokes on the buttocks” and “girls at school are given 3 strokes in their palms.” In Gokwe North, a girl noted how “we do many chores [at home], so you can be late for school. You will arrive at school whilst others have done that day’s work. The teacher will beat you because you are late.” None of 103 girls who stopped attending school said that they stopped attending school because of corporeal punishment.

The IGATE interventions SDC and CSGE aim to make school environments more girl-friendly. Since the second phase of CSGE that occurs within communities had yet to be implemented at the time of the midline evaluation, the impact of CSGE will need to be determined at endline.

Among the school-based factors that hinder girls’ education, there is evidence that girls who attend school face various forms of GBV, including unwanted sexual touching, as indicated in the following quotes. A Gokwe North community leader (who has been trained by IGATE) noted how: “We tell them [girls] that if a boy touches your breast, run away and stand far away. Tell him that you are going to tell the elders that he is doing that. If he keeps doing that we condemn it and tell him that it’s not allowed. It’s abuse to touch someone’s breast if they don’t want to be touched.” A girl who is a PW club member in Gokwe South remarked that the most significant change that has occurred related to IGATE was that “there are girls who used to have breasts fondled but they don’t do it anymore.” (There was no follow-up probe to indicate who was doing so but it seems quite likely, given the context of the quote, that this was done by boys at school.)

Of the 103 girls who stopped attending school, only 1 (0.9 %) said it was because of violence/bullying/harassment at school. This one percent is a girl from the treatment group. Given the sensitive nature of this question it is quite possible that girls who had dropped out of school would under-report incidents of violence/bullying/harassment at school. GBV is unlikely to be reliably assessed in quantitative surveys using self-reporting.

(Girls’ experiences of GBV outside of school will discussed further in the next section.)

Attitudes and support:

IGATE interventions designed to change peoples’ attitudes regarding the value of girls’ education and the importance of actively supporting girls’ education are as follows: PW, MG, VSL, Channels of Hope, Male Champions, SDC, and CSGE. (BEEP and Happy Readers provide support to girls’ education through the provision of bicycles and a reading programme with books, respectively.) The PW club aims to help girls build their confidence, understand the importance of their education, and do better in school, among other things. The MG aims to work not only within communities to encourage parents (and all others) to value the education of the girl child but also to support the girls themselves to stay in school and do well. VSL aims to change parents’ attitudes regarding the paying of school-related costs for their daughters by creating a mechanism that enables them to work together in small groups to raise money specifically for that purpose. Channels of Hope aims to change attitudes of members of the Apostolic and Evangelic churches who do not see value in educating their daughters. Male Champions is designed to enable the men in communities to be agents of change in support of girls’ education. SDC and CSGE aim to foster more girl-friendly learning environments including recognizing the importance of supporting girls’ education.

Evidence from the midline evaluation focuses on the impact of the PW, MG, and VSL since Channels of Hope, Male Champions, phase 2 of CSGE, and SDC had not been fully implemented at the time of midline data collection.

In Zimbabwe, negative attitudes towards girls' education pose serious barriers to girls’ schooling, especially when parents with limited financial resources to choose between supporting their sons’ or daughters’ education. The key barriers of poverty and long distances between home and school are compounded by other hindering factors. In some cases, parents who are illiterate may not have as much interest in ensuring their daughter goes to school regularly and does well in school. As a Mangwe community leader noted “it looks like the parents complain about fees as well as distance. There are kids who came from far away villages but it also has to do with illiteracy. Some parents lack interest. When they themselves are illiterate, they lack interest.”

The extent to which parents/caregivers are willing support a daughter’s schooling (i.e., how many grades they think she needs to complete) is greatly affected by parents’ perceptions of the value of education for girls and, perhaps most importantly, the perceived future benefits of that education. Some parents/caregivers believe that once a girl can read and write, she has learned enough and should stop going to school. A Mangwe headmaster reported “mostly [girls] drop out because parents are poor and/or guardians are frail or old and they cannot pay levies for them. Maybe the parents think they are now educated enough to write letters for themselves or something of that sort . . . They drop out mostly from 10 years old.”

The girls themselves can have negative attitudes regarding the value of their education for their future life. This too can severely hinder their motivation to attend school and do well in school. Since academic achievement is commonly understood as a way to increase one’s job prospects in the future, Zimbabwe’s poor economic condition and lack of opportunities to earn money may reduce a girl’s motivation to go to school, as well as her parents’ motivation to support her schooling both financially and emotionally. As a woman in Gokwe North stated, “these days there is the belief that there are no jobs in Zimbabwe and the [girls] are not taking schooling seriously, and therefore they just aim to be maids and shopkeepers earning $50.”

Girls’ attitudes and motivation are also shaped and affected by their experiences on the way from home to school, as well as in the schoolyard and classroom, as was discussed above.

The PW club is an intervention that directly supports girls by creating a safe space where they can learn and talk about important topics (e.g., menstrual hygiene, girls’ rights, and abuse), have fun and develop their skills. In Mangwe a girl described the best part of being a member of PW club is “that I can stand [up] for myself.”

Members of PW clubs in Nkayi had this to say about their experience with PW.

* What I like most about the [PW] club is that it encourages us girls to value education and study hard. I also like that the Mothers Group is also involved in teaching our parents to value girls education and not to deny girls access to education. The best part, I like learning about how we as girls should value ourselves. (R3)
* The best part of being a member of PWC is that we girls have a right to also go as far as we want with our education. (R6)
* What motivated me to join PWC is that I didn’t want to be left out when other girls were being taught about how to take care of themselves. (R8)
* [The PW matron] taught us about how to take care of ourselves and good hygiene practices. I enjoy it when the Mothers Group comes for sessions and teaches us how girls should take care of ourselves. (R12)

When asked what has been the most significant change that has occurred related to IGATE, another PW club member said, “some girls were thinking about getting married but when IGATE came and we told them what we were told, they stopped.”

A teacher in Nkayi spoke of the impact on two PW club members of participating in a girls’ leadership camp:

“I would also want to commend IGATE because last year they took two of the girls from this school on a trip. I hoped this would be something they would repeat so that more girls get a chance. The girls went for a peer leader camp in Hwange. It was very good because they got to see a lot of new things. The exposure was good for them and I wished that other girls could also get the chance. It really helped open them up because you find that even when these two write compositions they are outstanding and more creative than those who are always cooped up here in the bush. They came back and shared that they really enjoyed the trip and even spoke about the experience of eating yoghurt as they had never had yoghurt before so to them it was such a great and memorable experience.”

As noted above, MGs have also been active in changing attitudes and increasing community awareness about girls’ education. The following illustrates what MGs are doing and some impact resulting from their actions:

* As members of the Mothers Group, we have also taken advantage of community meetings to educate our community; particularly parents on the benefits of educating the girl child. I would like to believe that this has accounted for the changing attitudes towards girl child’s education by parents in our community.” (Mberengwa parent)
* In the Mothers Group we meet and try to help the children who are not enrolled at school. We teach the parents about the importance of sending their children to school instead of letting them stay at home. A child should be educated so that he or she has a better future and be able to stand on their own in this world. We tell them that if they do not send their girl children to school, it kills their future because they end up in danger. We try to make them see the importance of educating them [girls].
* Mothers Groups are also doing a great job in that regard including encouraging parents and girls to value education. As a result, our attitudes in the community have changed. As the SDC chairperson, I feel proud when I see girls going to school every morning in their numbers, some of them riding their bicycles. It’s encouraging.”
* This programme that IGATE started helps us to know that it’s bad to abuse girls.” (Mberengwa FGD, R3)

Violence and safety:

Evidence from the midline evaluation reveals that girls experience violence and unsafe circumstances on their way to and from school, at school, at home, and in the community. Peer-to-peer violence was most commonly discussed; teacher-to-student violence in relation to corporeal punishment was also discussed, as noted above. Other disturbing findings emerged related to other types of interactions with young girls and boys or men. While adults commonly mentioned older men having sexual relations with schoolgirls, only girls in two FGDs mentioned sexual abuse perpetrated by male family members (brothers and/or fathers).

Insiza PW club members noted the following as the most common forms of violence or abuse that affect girls in their community:

* Rape (R3)
* If you’re walking alone a man can threaten you with a knife, and even if you scream for help no one can hear you because you are far away from homesteads. (R10)
* Boys can fondle our breasts and buttocks (R4)
* Boys threaten girls (R7)
* When girls go to the club/bars, whilst they are dancing they are pulled by men because they will be drunk. (R10)
* And people handling us by force (R6)

Girls in a PW club in Chivi described the following:

* We come across a car. Then you are told to hop in and when you do, you will be raped. (R1)
* Others would have been threatened that if they don’t get into the cars they will be knifed. (R9)

When asked about the safety of travelling to school, about 20 percent of girls said that it was “fairly difficult or unsafe” and a similar proportion said “very difficult or unsafe,” summing to nearly 40 percent. An adult in Nkayi noted how “we encourage children that when they are walking home from school they should walk in groups so that they are not easy targets. Even if something has to happen, when they are in a group there are witnesses to help identify perpetrators.”

Girls in Insiza described being unsafe when doing chores such a “when fetching firewood” (R5). Another girl said, “Sometimes at the borehole they will be sitting watching us” (R7). (There was no probe to follow-up on who watches the girls). In Nkayi, a girl reported that “it’s not safe to go to the borehole when it’s dark because the boys can ambush you and beat you or stone you with catapults.” When girls in Nkayi were asked about their safety when in the community, they all agreed that “it’s not safe after dark any time of the week.” Girls across the districts talked about being beaten at home by a parent or caregiver.

When exploring who is having sexual relations with schoolgirls, adults most commonly talked about older men, including men from the Apostolic church who marry young girls. In Binga, participants cited instances of 60-year-old men having sexual relationships with 16 year old schoolgirls, although they said it is not common. One adult noted “some men sweet talk these girls by giving them small gifts, vanilla biscuits.” (Others laughed in response to this comment.) A teacher in Binga noted that “through emphasis on the legal age of majority, at least some men are scared away from touching these minor girls because of fear of being jailed.” In Chivi, an adult described, “in our area, where these men drive combi cars, they are asking out the girls, and these children are leaving school at Form 2 because of these men.”

The participants in the Binga FGD also noted that some women have sexual relations with school boys. One person commented, “Sugar Mummies are common especially in Mpambi village.” (Others agreed.) Another individual then described these women as “50 years and they enter into relationships with 15-, 16-year-olds.”

Girls in two of nine FGDs raised the topic of brothers sexually abusing their sisters. In Chivi, one girl described: “You will be sleeping with your brother in the same room, then your brother gets into your blanket . . . He gets into your blankets, then lifts your skirt and does what he wants.” When the facilitator asked the girls “Is this really happening? Girls your age are experiencing this?”, all replied “yes.” One girl added “even fathers are raping their daughters.” A third girl described the following incident: “My sister was 13 years, it happened when she was sleeping. Our brother came with a knife and scissors and he said, ‘remove your clothes. l want to teach you a lesson. If you refuse I will cut you with this knife.’ Then she did as she was told.” In Insiza, one girl remarked, “The police should be in the village so that if my brother or my friend rapes me I can report them to the village police.”

Some children who live very far away from school are more vulnerable to GBV as described by a Mberengwa community leader: “There is the issue of children who come from distant places as Sovelele to attend school here . . . These children are renting accommodation at the shops because the distance is too far for walking daily. The result is that these children open themselves to abuse.”

Only one of the 103 girls who dropped out cited GBV was as a reason for dropping out. This could either suggest that it rarely is a factor in dropout or that the sensitive nature of the question and fear of potential repercussions could result in significant under-reporting of GBV.

When discussing efforts to address issues related to GBV against schoolgirls, it is clear that this is quite a challenge. A woman trained in IGATE interventions in Beitbridge responded as follows when asked if anything being done to stop GBV against girls: “It is difficult to even get the courage to approach that person, culturally it is difficult to just approach a person and just advise them, especially the older people.”

Most others, including girls themselves, spoke positively of IGATE’s impact related to addressing GBV. For example:

* “Girls can now speak out [to the PW matron] if they are abused or having personal problems . . . I was taught [this] when l joined Power Within Club. (Girl in Mberengwe)
* “Such things [GBV] exist but it’s only that people do not pay attention to such issues. These days, people are now aware of what amounts to gender-based or any form of violence and its consequences. As a result, they correct themselves before they get into trouble with the law or community leaders. These things were common long back but nowadays people have been enlightened hence they might do it secretly and stop before being caught . . . The community together with external actors like IGATE have worked together to eliminate such practices.” (a parent in Lupane)
* “The government sends policemen to attend IGATE meetings so that they may educate members of the community on GBV and its consequences . . . People now have an appreciation of what GBV is.” (a teacher in Lupane)
* “l think since all these interventions [by IGATE, District Aids Council, and IGAC] began a lot of things have started coming out. People were not able to speak out but now cases of child abuse are being reported as they happen. Children are now aware as to what is wrong and right and can now report cases abuse . . . MG and the girls club . . . It’s because of these two interventions that has seen the girl child reporting cases of abuse”. (Insiza DEO)
* “The Child Protection Committee in the community is working hard mobilising the community about GBV, about its bad effects to the community. They call perpetrators and warn them about their bad deeds, they can be sent to the headman for light punishment like manual work for the benefit of the community, like filling the diptank with water. Villagers are also involved in making sure that GBV is eradicated as they are the eyes of the headman in the community . . . Everyone is involved in this fight against GBV.” (Insiza school head)
* “The cases of girl child abuse are on the decrease. Before IGATE, a week would hardly pass without hearing a case about abuse of girls. Now if you were to walk around asking for cases of girl child abuse you would hardly get any. It’s different now and I think the coming of IGATE taught many people a lot. As women attend those meetings they pass the same information to those at home and that’s how the information is cascading. Just like you have come to my home today people will ask me about your mission. I will tell them about these issues that we are discussing and this way the information on girl child education gets to spread. Don’t think it will end with your departure.” (Mberengwa Community leader)

While many people spoke positively of changes related to GBV that have occurred in their community due to IGATE interventions, in several instances people said that despite the interventions, nothing had changed or could be/is being done to stop it. For example, women in Chivi were asked “Is anything currently being done in this community to prevent GBV against girls?” One woman replied “It’s just happening. Nothing is being done.” Another woman agreed. There two other instances, headmasters in Mwange and in Mberengwa attributed a reduction in GBV to the actions of the police rather than to IGATE interventions.

Midline data from Chivi provides evidence of girls’ early/forced marriage and IGATE efforts to address it.

Respondent: “The police are trying to fight forced marriages. They come to the schools and talk to these children and tell that if you are forced to get married to someone against your will then you should come to the police camp and report this to us.

Facilitator: “Is this activity related to any IGATE interventions?”

R7: “I think it’s related to IGATE because what is being done by the police is also aimed at reducing GBV against girls and this is exactly what IGATE are doing.”

Facilitator: “Is it effectively reducing GBV and harassment against girls? Why?”

R2: “Yes it is working well because if a man and gets in a relationship with a young girl the fine that he has to pay is heavy. So the old men are now afraid to get into relationships with young girls because they know that they will end up going to prison once caught.”

Midline data also provides evidence of the custom of early marriage for girls within the Apostolic Church. This practice of early marriage results in girls dropping out of school. A Mberengwa community leader noted that “around here we have very few school dropouts but in areas across the river there is a lot of work that needs to be done to reduce the dropout rate. I think it’s because of poverty and religious beliefs. The churches there are predominantly Apostolic. We hear cases of underage girls getting married there.” Channels of Hope aims to reduce early marriage of girls to men from the Apostolic or Evangelical churches. Since this intervention was not being fully implemented in the period prior to the midline evaluation, its impact will need to be assessed at endline.

**Note from the IGATE Project**

The fact that girls and women are speaking openly about GBV and cases of abuse in general demonstrates the positive effect of the project in breaking taboos and shifting traditional norms, particularly the culture of silence around cases of abuse. However, the project is also aware of the risk of harm to the girls who speak out, as well as the members of the Mothers’ Group and matrons who support them.

The project conducted an in-depth study on cases of abuse and drop-out reported by MGs in April to June 2015 in order to guide further refinement of the interventions. Out of the eight confirmed cases reported during this period, six had been perpetrated by under-age drop-out boys, a trend that further reinforces the need to work with boys to prevent such occurrences. Seven out of the eight cases had been reported to the police. However, it was also noted that cases are more often reported out when affecting directly a MG member or when the parent approaches the MG directly. MG members mentioned being afraid of reporting cases they are not directly involved with or that had not been reported by the parents to them, given the fear of reprisals and, in some cases, parents’ preference for settling cases out of court through the payment of fines. The project is currently strengthening linkages between MGs, the police and service providers.

**Personal factors:**

Girls who have reached puberty commonly miss some days of school each month due to a lack of adequate sanitation facilities (including separate safe toilets and water) as well as a lack of feminine hygiene products. Missing so much school over time can be a reason a girl may do poorly in school resulting in her dropping out or her being pushed out of school because teachers and peers do not see her as “a good student”.

As was the case at baseline, findings related to menstruation serving as a barrier to schooling were primarily qualitative. The DEO in Gokwe South discussed how issues related to girls and menstruation has been given attention at the secondary level but not at primary level. The DEO stated, “in primary we still have that challenge that if a girl is having her menses she may not have anything to use and then she may think of staying at home for the four days or the five days and then after that she will then go back to school. So if you count maybe per term, a term has got three months so if we say four days every month it will translate to about 12 days of absence. Then what about per year? Multiply those days by 12, it will be many days. So I think maybe what SNV is now wanting to introduce [through WASH] is also going a long way in improving girls’ attendance to school because they are going to address the issue of sanitary.”

The baseline study noted there is a strong taboo in Zimbabwe about discussing menstruation, yet there is a great need for girls to understand menstruation and know how to take care of themselves when they have their menses. It is likely because of the need for these discussions and information, as well as RUMPS, that almost all FGD participants considered learning about the rights of the girl child, menstruation and hygiene, and learning about abuse as the “best part” of being a member of PW club, as noted earlier. A community leader in Mberengwa talked about how “they [the MG] are also teaching children about menstrual hygiene. These issues have a bearing on girls’ confidence and attendance. The girl might feel embarrassed if that happens at school while she is not adequately prepared for that.”

MG efforts were noted to have reduced dropout. One adult noted “dropouts are few now. The Mothers’ Group has really helped a lot, especially those who used to drop out due to shortage of sanitary wear [pads] during menstruation.” Another stated, “if a girl goes through her periods whilst she is at school, the Mothers Group has some soap and water and pads for the girls to use. So because of this a girl who is having her periods is not different from the one who is not having her periods. So girls are able to attend classes more often since they will be having pads to use.” The DEO in Insiza described how “MG and the girls club made a positive impact in that very few girls now miss classes when they are in their [menstrual] cycle since the MG and girls’ clubs now make affordable sanitary pads for the girls.”

Girls in PW clubs talked about learning how to sew RUMPs. A girl in Insiza noted how, in the PW club, “we also learn to make pads [RUMPs] and pants [underwear] for wearing for ourselves.” Describing how she has benefited from being part of the PW club, a girl in Mberengwa said “I am now able to sew a sanitary pad that l can reuse. I can also teach other girls to sew such pads.”

The efforts of the MGs were broader than just helping the girls: “You also find out through MG IGATE is doing a lot to cater for this problem you will realise that those girls mostly in grade 6 and 7 will miss school the entire period when they are menstruating, you will find out these girls will miss school on these days every month. So MG made an effort to go out and teach both parents and students to encourage and teach them to be in school even though they are menstruating. It also encourages the fathers to spare some money to their wives so that they can use some of this money to buy pads for the girls.”

A teacher in Mberengwa noted changes in boys’ attitudes regarding girls and menstruation: “As for the Power Within Club, it has changed the perception of most boys. Boys now have come to learn and understand that menstruation is not a taboo but it’s a normal stage of development that occurs in a girl. This change was brought about various [PW] activities that were being done by both boys and girls such as campaigns and poems.”

Midline data also provides evidence of young girls getting pregnant. Approximately four percent of the 103 girls who had dropped out said that pregnancy was a factor in their dropping out; all of these girls were from the control group. A PW club girl in Chivi stated some young girls get pregnant because “they are being raped.”

About five percent said their marriage was a factor in dropout. Of these, three percent are from control schools and two percent from treatment schools.

2.6.3 How have the project’s interventions demonstrated value for money?

1. Benchmarking

Benchmarks and targets were set at the operating level for each intervention and reported on during each quarterly report. According to the quarterly and annual reports, the majority of milestones were reached in the expected quarter timeframe, or one quarter following the expectation. This includes many of the key implementation activities: mobilising and training VSL groups, MGs and SDCs, the facilitation of PW clubs, and set-up of abuse reporting mechanism. Programme staff was able to track benchmarking through Activity Milestone Documents and Quarterly Reports that kept each implementation accountable to targets.

The target implementation was initially set for a randomly assigned 75 percent of schools (350 of the total 467), but implementation is now reaching 100 percent and exceeding the target number of schools and groups. This information is confirmed in the quarterly reports and through an interview with World Vision project staff.

Benchmarks and targets were also set for project performance and evaluated through the logframe and rigorous baseline and midline data analysis.

1. Local Procurement/project costs

IGATE has used the geographic reach of World Vision, the technical capacity and local knowledge of partner organisations, and the integration of existing development models to ensure a low cost for programme implementation. IGATE has also been able to use World Vision’s non-grant programme (Area Development Programme) to complement IGATE objectives, to share costs and to set the foundations for programme delivery.

For example, in eight of the 10 programmatic areas, World Vision had existing offices pre-grant inception, allowing for use of existing government relationships, use or sharing of office space, and use or sharing of existing equipment (e.g., internet access, vehicles) in some areas. IGATE was also able to share non-IGATE staff in many situations to help improve partner relationships and to expedite project delivery. This cost share and partnership approach is a huge benefit to the DFID and World Vision as it reduces initiation and overhead costs, increasing programme value.

IGATE ensured that the planning of the programme successfully utilised organisational technical capacities. Throughout the consortium, each partner agency has utilised proven models for success, using manuals, models, and technical programming that has been tested in other countries. This has reduced implementation cost and allowed for more focus on programming and innovation.

This project has emphasized local staff and partners since the beginning of IGATE. The entire staffing strategy for the programme is very locally focused, and sustainability and value for money are key considerations. Out of the approximately 120 staff who are part of the IGATE consortium, approximately 89 are World Vision staff and only one is an expatriate. In the WV UK office, there is one local staff member and one Zimbabwean staff member.

IGATE has procured physical resources within Zimbabwe whenever possible. Notebooks, writing utensils, books, and learning equipment were purchased locally. Bicycle parts came from abroad, but were assembled in Zimbabwe. Computers were imported to Zimbabwe.

1. Effective Partnering

World Vision created a consortium of partners based upon a) technical expertise, b) complementarity, c) geographic scope, and d) response to identified needs for girls and education in Zimbabwe. Because of this approach, IGATE was able to take advantage of a large geographic presence, a long-standing relationship with the Government of Zimbabwe at all levels (national, provincial, and district), technical expertise in a number of models, and experience in operating a grant of such size and rigor. The following is a list of NGO partners and what each brings to IGATE:

* **CARE** was chosen due to its history of working with girls’ education issues, financial empowerment and its history in Zimbabwe. The technical insight that CARE provides to IGATE is vitally important to the success of the interventions. CARE supports the PW, VSL, and MG interventions.
* **SNV** was chosen due to its leading role within Zimbabwe on Menstrual Hygiene Management issues. SNV is a key partner in the finalization of menstrual hygiene products with the Standards Association of Zimbabwe. In addition, SNV has a working relationship with the MoP&SE on the rollout of training of SDCs.
* **EFZ** and **UDACIZA** were chosen as local agencies intrinsically involved in the religious movements in Zimbabwe. Partnering with EFZ and UDACIZA enables IGATE to reach these very important sectors of society and provides World Vision opportunities to work with them to build their capacity.
* **WBR** was chosen due to its global expertise on implementing bicycle projects in rural development programming and its willingness to provide a sizable funding match to IGATE.
* **Happy Readers** was selected as a partner because of its MoP&SE-approved literacy curriculum, its existing literacy interventions within Zimbabwe, and its knowledge of measuring reading outcomes.
* **EWF** was chosen as a partner because of its understanding of local systems and its male championing work with men throughout Zimbabwe. EWF also have experience in dealing with GBV.

World Vision has a very strong and active relationship with the Government of Zimbabwe. Working directly and regularly with the national, provincial and district MoP&SE, IGATE has had a high level of engagement and support. World Vision and its partners have also experienced strong support from other Ministries and from the RDC and District Administrators in each district where IGATE is operating. All IGATE activities engage the government; they are often consulted on determining exactly how to implement because they know the communities so well.

IGATE continued to maintain and build relations with the government ministries, notably the MoP&SE and the Ministry of Women’s Affairs, Gender and Community Development (MoWAGD). Some successes noted to date include participation of MoP&SE in the discussion of partnership with WBR for the distribution of bicycles in response to the long walking distances to and from school, and the leading role taken by the MoP&SE in the CSGE model roll-out. MoWAGD staff have been instrumental in facilitating traditional leaders’ awareness sessions on gender-related issues at district level.

IGATE’s partnership with religious organisations UDACIZA and EFZ has allowed for entrance into arenas, communities, and discussions that many international NGO’s are never involved in programmatically. Through these religious bodies, IGATE has been able to communicate behaviour change processes and disseminate information for success.

4. Pooled Overheads

Overheads are pooled across the five different outputs; however, this depends on the expenditure that has been incurred for that intervention. The higher the expenditure on a particular model or intervention, the higher the amount of overhead absorbed. In total, £ 747,431.32 was spent on administrative overhead costs, which includes staff salaries. Budgets were prepared for each output.

5. Total cost/direct and indirect beneficiaries

The total project budget of £14,020,467.00 is divided into each of the five outputs as follows:

|  |  |
| --- | --- |
| Output 1. Increased household capacity to support and prioritise girls’ education | £3,267,747.86 |
| Output 2. Target communities are actively supportive of equal education opportunities through MGs, SDCs, local leaders, and girls themselves | £3,193,184.10 |
| Output 3. SDCs have the capacity to lead participatory management of schools | £1,270,786.37 |
| Output 4. Target communities are actively improving the learning environment for girls | £2,561,059.00 |
| Output 5. All schools provide opportunities for girls’ personal development through PW | £3,727,689.25 |

IGATE uses four benchmarks of beneficiary accountability: 1) consultation, 2) participation, 3) feedback and complaints, and 4) information provision. Information provision takes place through posters, pamphlets, quarterly reports, and newsletters to ensure that stakeholders are always aware of IGATE activities. IGATE also maintains community working groups that are conducted quarterly to ensure feedback and effective implementation and a monthly operation working group.

The community is consulted on how to effectively implement each project. For example, for the BEEP programme, IGATE staff engage the community with the overall aim to ensure that all children who travel long distances have access to a cheap mode of transport and then allow the community to be responsible for distribution.

Note: It is not possible to disaggregate the cost-effectiveness of individual interventions because they were implemented simultaneously and in relation to each other intentionally, as described above in the IGATE design.

2.6.4 In what ways has IGATE demonstrated innovation and with what effects?

In some respects, the overall project could be considered innovative as efforts to support girls’ education, such as paying school fees and providing support to girls regarding menstrual hygiene, has occurred in many of the IGATE districts but only at the secondary school level and not at primary. As one Mberengwa community leader noted, “These [IGATE] programmes that are being done have raised awareness about the need to prioritise the concerns of the girl child. In the past no one gave a hoot about the girl.”

IGATE also includes innovative models that are a shift from the current norm such as CSGE and Channels of Hope working with religious organisations, and Male Champions working to engage men as agents of change in activities for girls’ education, BEEP is also an innovative intervention that has raised excitement about the project. As a religious leader noted “the BEEP intervention has improved school attendance both from those who benefitted and those who anticipate to benefit.”

IGATE is a social norms project. It focuses on education needs of girls and on the social norms that devalue girls attending school and completing their education. In contract to traditional direct education interventions of most projects, IGATE is innovative as it seeks to address the demand and supply side of girls' access to education from a holistic perspective. It targets the girl, her household economic situation, her school, her community, and the education system/policy.

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

IGATE is designed to reach the most vulnerable girls in poor communities by targeting the most marginalised school communities, as classified by MoP&SE, within Zimbabwe’s poorest districts. Monitoring results, anecdotal evidence, and data analysis suggest that the most vulnerable households and girls were most positively affected by IGATE interventions, including increased ability to pay school fees, having access to food, and reducing dropout rates.

Key qualitative findings from KIIs and FGDs provide evidence of the effects of four interventions being implemented at the time of the midline data collection: BEEP, MG, PW, and VSL. (The effects of each intervention on barriers to girls’ educational outcomes have been detailed in section 2.6.2. The key drivers and barriers to implementation, addressed above, apply to all IGATE interventions.)

Girls who were members of the PW clubs were very vocal about how and why they enjoyed PW activities, as detailed in earlier sections. PW clubs worked best when the teacher trained to be the PW matron is committed to the task, provides effective leadership, and remains at the school from one year to the next. (As mentioned earlier, teacher transfer can result in someone being trained one year and then being moved in the following year. Now IGATE provides on-site training of a new PW matron when this occurs.) As one World Vision staff member noted, the effectiveness of a PW club depends upon “the innovativeness and the willingness of the trained matron to do the activity.”

KII and FGD data show that MGs were clearly considered one of the most important and successful interventions. MGs appear to have been active in all districts and all stakeholders were generally aware of this intervention. The MGs were credited with addressing many of the barriers to girls’ education. Many participants mentioned the efforts of the MGs as bringing about the most significant change in their community. For example, one person noted “the MG interventions are the most significant change in this community. It has fostered paradigm shifts. We have looked at cases of GBV (e.g., “forcing child to carry a heavy load than they are capable of doing.”) Another said, “I think the most significant change is that of more children staying in school compared to past years where parents were not really bothered by the fact that their children have dropped out of school. I think this is because of the work of mother groups coupled with the efforts of the village heads who have taken it up to make certain that children get a proper education.” MGs work best when the members take on their responsibilities in a committed, dedicated manner. The way members of the MG work with VSL and community members is also very important as noted by a community leader in Mangwe: “Mothers Group works in conjunction with the community leaders, because whatever the Mothers Group does, it has to go through the community leadership.” The challenges MG members face are many but, as noted throughout this report, there is evidence that MGs have a great positive impact on not only supporting girls in terms of their education but also in terms of their whole lives.

VSL was another well-known intervention according to KII and FGD participants and was attributed with creating strong change in regards to families’ ability to pay school fees as well as purchase food or farming equipment/needs. Some participants identified VSL as the IGATE intervention that was bringing about the most significant change in their community:

* VSL is the most significant change because, besides talking about keeping girls in school, VSL came in as a vehicle to drive that initiative. The girl would require school fees, VSL will ensure that happens, the girl will require uniforms and we will get the money from VSL. This is an important part of the IGATE programme.
* I think VSL groups because these have made parents want to work for their children to stay in school, and also being very active in helping out in the income generating projects.
* I have realised that those who are in VSL groups are very active and they can see that the money they are raising will help them in future when it comes to their children’s education.

As with the other interventions mentioned, VSL worked effectively when the community members who were trained provided the leadership to establish and support the VSL groups. Despite the great challenge of having an intervention that requires poor communities to pool their money to support girls’ education, there is evidence, as noted throughout this report, that the VSL intervention is helping poor communities be self-reliant in their efforts to support girls’ education.

BEEP was discussed in positive terms by the majority of stakeholder groups and was a well-known intervention even in communities that had not yet received any bicycles. The use of bicycles was attributed to great changes in attendance and a reduction in tardiness as well as improving girls’ time management, allowing them to finish their chores and still arrive to school on-time, as well as leading to greater gender equity due to more bicycles being distributed to girls, enabling them equal access to school. Some KII and FGD participants described how, of all the IGATE interventions, it was BEEP that has resulted in the most significant change in their community:

* Yes, there is change. But I feel that were it not for the bicycles, people would not have been as eager to embrace the programme. The bicycles brought the biggest change even in people’s attitudes.
* The BEEP programme, it has caused a lot of positive change . . . Because of the new-found eagerness of students to go to school unlike before. They now have the bicycles. That’s the major change.
* The number one change that I noticed in this community was the BEEP project. This is the most important intervention because now even when the children are going back home they no longer get there when it’s already dark. When they are riding back home you see them in groups wearing some helmets and this is really nice to watch. Some time back the parents used to blame teachers for releasing the kids late.

As noted earlier, at the time of the midline data collection, BEEP had been implemented in only one of 10 IGATE districts. However, evidence in this report shows how effective this intervention has been in Binga. For BEEP to be effectively implemented, community members form a committee to develop selection criteria as to who is eligible to receive a bicycle and the terms of the usage of that bicycle. Someone from the community is trained as a mechanic to fix the bicycles when needed. As with all the interventions, BEEP relies on the commitment of community members to work together to help girls reduce their travel time to and from school as well as reduce risks to their personal safety while on that daily journey. It also relies on the mechanic following through after they have been trained and being committed to the responsibilities entrusted to him/her.

**Key lessons**

As evidence in this report clearly highlights, marginalised girls in rural Zimbabwe face many barriers not only to their educational achievement, but also to their general well-being. It is critical to support these girls within the school and throughout the wider community.

Everyone, including the girls, needs to understand clearly what constitutes unacceptable treatment of girls and know that there will be consequences. To bring real change to the lives of girls requires a holistic approach, such as the one used by IGATE.

As much as is possible, especially on sensitive matters, the relevant government ministries and community need to lead the interventions. This worked to the favour of IGATE on the CSGE model where MoP&SE is leading the model implementation (i.e., interpreting the policy), and making use of the referral pathway by communities to respond to child abuse cases. It is also a necessary component of project sustainability and impact.

Focusing on the supply and demand side of intervention gives a holistic and complete response to the barriers being addressed. This holistic response answers the question about issues and needs as much as is possible and as resources can permit. This response has seen IGATE capture a lot of attention as it responds to most needs IGATE is appreciated for its intervention models.

Implementing nine models has increased the complexity of the overall project. While IGATE is implementing many proven models, some ‘model integration’ challenges have arisen where fidelity to the model is not possible within IGATE without compromising on other project deliverables (such as timeliness, reasonable staff work load, and community expectations). Implementation of the nine models, all requiring fidelity of implementation, has seen staff bear huge workloads. This has compromised on quality of project delivery (such as timely submission of accurate documents, and limited model integration).

Note from the IGATE Project

Model integration is one of the most innovative aspects of IGATE. The merging of the VSL training with the training for MGs, from April 2014 onwards, resulted in time and workload savings for project staff and participants, while resulting in increased cohesiveness. The cooperation between Mothers’ Groups, matrons responsible for PW clubs and SDCs has resulted in gains in moving forward the menstrual hygiene management/ sanitation agenda in schools, as well as promoting cooperation between the school and parents towards improving attendance, punctuality, payment of fees and support to school-related cases of abuse and GBV.

The RCT design nature of IGATE is affected by on-going contextual issues where the project has no control over what happens in the ‘control schools/groups’ in particular. District local authorities try to spread ‘external’ NGO coverage and support equally across their constituencies. As such, control schools and groups end up receiving interventions that treatment schools and groups do not receive, some of which may be ‘superior’ to what treatment schools receive. This makes null and void the RCT assumption that the control group is receiving no interventions.

The random selection of treatment schools left out project focus on vulnerability factors (with the false assumption that all P3 and S3 schools are homogeneously vulnerable). The effect has been that some non-deserving schools (e.g., closest to main road) benefiting whilst leaving out more vulnerable (remote) schools.

Note from the IGATE Project

The random selection also resulted in bias towards control schools in more accessible locations, in some specific cases. Three schools in Gokwe North, all sample control schools, are located in the district capital, while the treatment sample schools in the same district are all rural, thus resulting in an imbalance in district results. The project is currently liaising with the consultants towards obtaining district-wide data and potentially excluding outliers (such as these) from the analysis.

In some school communities, the dire need is for infrastructure development to support the IGATE soft interventions. Some schools, especially satellite schools, have no structures. The lack of infrastructure support has the high likelihood of not meeting the community needs, nor of seeing the full (expected) impact of IGATE's interventions. This has been raised much by District authorities (e.g., in Binga and Gokwe North).

Operational constraints with very limited capital assets such as vehicles made it difficult to access the field effectively and efficiently to implement the project. In some districts, there was only one vehicle for 10 staff who are implementing IGATE activities in 70 schools.

Community volunteers approach has worked well under the Mothers' Group model as this is where members utilise their own time to cover community work for the benefit of individual households other than themselves. However, there are issues related to motivation of the volunteers being reported.

CSGE through the community working group is working with SDCs to mobilize resources to improve the school environment (e.g., building toilets, teachers’ houses and classrooms, classroom blocks etc.).

The matron is key figure in all IGATE models and it has been observed that the matron is overwhelmed by IGATE demands considering their own normal teaching obligations. The matron already has a co-worker and the challenge is faced when the matron transfers although the idea is that the co-worker continues facilitating activities. The project is exploring ways to distribute workload to other stakeholders in the coming year.

IGATE interventions are integrated, such that it would be difficult to pick interventions that contribute more to learning than the others. Using the sample of girls participating or with household members participating in the IGATE Models the report shows varied contribution to Literacy and Numeracy.

By design, some models are more directly in contact with the girls whilst others are not, hence the variance. PW and BEEP are directly engaging with girls, hence significant impact. VSL contributes indirectly by having girls attending regularly through payment of school fees, providing adequate meals and investment in education supplies and uniforms. There is qualitative and quantitative evidence to support this.

For others, like CSGE, MG, and SDC, their impact takes longer to be noted on learner outcome, as these involve changes to attitudes, environment.

This does not mean there is no impact; impact is there but the midline was undertaken within 1 year of implementation of some models, hence less time for impact. The 'stepped' model implementation under IGATE is another contributor as this resulted in varying exposure time of models; the stepped implementation was meant to manage work load.

A holistic approach, no design answers all the 'what if' or 'what of' questions that may arise when one reads the theory of change. In practice, there is a need to ensure that individual models are 'revised/contextualised' to suit the project/programme they find themselves in. This 'revision' will greatly assist in realising the key principal needs of the model and for the project/programme, thereby ensuring a more close-to-reality workload realised during implementation. External factors, outside the implementer, can adversely affect a well designed and implemented project/programme through the ToC distortion. IGATE experienced this through: a) the election disturbance in 2013 and need to re-start project momentum post elections in September 2013; b) drought and food insecurity which started having effect on the project early 2015; the previous agricultural season has been lean, with IGATE beneficiaries predominantly subsistence farmers; and c) the unstable and deteriorating economy is affecting the expected progressive growth and response towards the education access and completion of girls. Unstable economy is affecting the VSL model, income allocation at homes, the overall operating 'context/environment' and hence the holistic approach (and the ToC).

Attitudinal behaviour: working through the local systems and structures (traditional leaders, conservative church leaders), and having the MoPSE lead the CSGE (education policy discussion) sessions is proving to be helping in changing attitudinal behaviour.

Having the project team ‘as an outsider in the local system engagement’ has its limitations as the accuracy of implementation is not easily tracked and corrected. Because attitudinal behaviour change is more difficult to measure (outside the immediate 'excitement' after an awareness session) and takes time, conclusion whether these intervention is working or not cannot be made on a long term. On a short to medium term, these are working.

Volunteering: from the external effects of drought and economy, volunteer work and impact to community project works when household food needs are adequately met, and there are fewer competing demands for the household income. Concerning the volunteers, this will result in lesser expectation of something from the project because of the volunteering; community maintenance work will be seen as ideal and feasible.

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

2.7.1 What is the project’s sustainability strategy?

As described in various sections above, a summary of IGATE’s sustainability strategy is as follows:

1. To partner with government ministries and departments at district levels.
2. To work with and use community structures to the extent possible.
3. To align project interventions with the MoP&SE’s development direction and approach.
4. To continually review the local context to ensure IGATE’s intervention are relevant to the needs of the project’s beneficiaries.

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

The project identified pre-conditions for scaling up and for sustaining its activities and results in the earliest design and assumptions. For example, CSGE engaging religious organisations in an innovative model – a shift from the current norm of project design. These religious institutional structures expand far beyond IGATE – a structural condition for scaling up. Religious norms, which include gender norms, are deeply embedded in the communities, and in individuals. Addressing (i.e., challenging) gender norms that are intertwined with deeply-held religious convictions is a pre-condition for changing negative gender attitudes and sustaining the results of initial impact.

Other activities, such as BEEP, bring attention to the project’s goals and excitement to the participants, and will result in tangible changes (i.e., in girls’ education and lives) that communities can work to sustain.

The nine project models stretch the team’s scope and capacity to deeply pursue each model for greater impact.

Enabling factors include good working relations with MoP&SE as well as sound MoP&SE systems and structure.

Hindering factors include the following:

1. inadequate and non-existing infrastructure in most remote and rural schools;
2. unstable economic situation and continuous food insecurity within households lead to income channelled from education to survival needs; and
3. societal, cultural, and religious beliefs and practices that do not promote education access for girls and boys (e.g., child marriage, migration, lack of interest in education).

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

IGATE has worked with Government of Zimbabwe ministries (e.g., MoP&SE, Ministry of Women Affairs, Ministry of Local Government – DA, RDC): these ministries and departments have been the key leaders in the alignment of the project to their mandate, in leading community engagement sessions, and in affording the project the operating “space” and environment in the districts.

IGATE partners have worked collaboratively in relation to model rollouts, technical support for the models, and planning and reporting improvements.

The project has made some positive behaviour change in regards to the value of girls’ education, especially when it comes to the understanding how menstrual hygiene issues greatly affect girls’ education.

The CSGE model is influencing engagements and dialogue between service providers and service users to be informed by policy documents, which both must have access to.

2.7.4 To what extent has the project leveraged additional investment?

IGATE has leveraged additional investment in the following ways. IGATE received additional funding from WBR to distribute 22,800 bicycles. Other forms of additional investment include time spent such as the time community member spend implementing IGATE interventions. Models like CSGE have built capacity of district government ministries in working together, to better understand government policies and circulars related to improving girls’ education. There are anecdotal ripple effects to other schools emerging in relation to child protection and community involvement in education.

2.7.5 What are your plans for delivering sustainable results?

IGATE plans to deliver sustainable results by continuing to work alongside government ministry departments and their staff; it will also continue to build on government and community structures and development strategies. IGATE will continue to conduct Training of Trainers sessions (i.e., technical support) with government ministry and community staff for continuation of the work after the end of GEC. These will include trainings with Cluster Facilitators under the VSL model, District Working Group members under CSGE model, and school teacher training under Happy Readers and PW models, bicycle mechanics training under BEEP. In addition, IGATE will continue to promote economic growth within communities, building upon the VSL model. To that end, participants from mature VSL groups are currently being trained in the setup and management of income generation activities, thus diversifying sources of income and minimising household vulnerability to the unstable economic situation.

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

Mothers Groups are proving to be a key player in the education access campaigns, for both girls and boys. Their role in handling truancy and abuse cases may need further support (e.g., from police and other influential persons so that reporting and follow-up is done without fear of backlashes.

The assumption that improvement in household income will result in increased spending on education requires confirmation of other external interventions (e.g., on health and food support as these may take precedence to education in dire times).

Learning outcome interventions (on literacy and numeracy) will require infrastructure support in these remote locations, if a significant improvement is to be realised. Most project schools lack safe and adequate infrastructure (classrooms, teacher accommodation, desk and chairs) to complement the current interventions aimed at improving learning, attendance, and retention.

The CSGE approach of having the MoP&SE lead the working group and community engagement is appropriate, as it places the policy owners in the lead to explain and to elicit feedback on their policies.

Using the school as the reference point for all interventions enables the messages of education access, retention, attendance and learning outcome to be shared more effectively.

Sustainability of changes to discriminatory gendered beliefs and practices that hinder girls’ education requires that the messages and processes delivered through the various trainings (e.g., VSL, MG and PW) be internalized by the trainees and spread throughout the wider community. During midline data collection, the dissemination of IGATE messages from person to person within the community was evident in comments such as the following:

Before IGATE, a week would hardly pass without hearing a case about abuse of girls. Now if you were to walk around asking for cases of girl child abuse you would hardly get any. It’s different now, and I think the coming of IGATE taught many people a lot. As women attend those meetings they pass the same information to those at home—and that’s how the information is cascading. Just like you have come to my home today, people will ask me about your mission. I will tell them about these issues that we are discussing and this way the information on girl child education gets to spread. Don’t think it will end with your departure. (Mberengwa Community leader)

Under CSGE, it is the MoPSE that leads the community engagement on education policy documents thereby 'empowering' communities for further 'citizen engagement' from an informed position. In one community, they have used the CSGE platform to engage the District Administrator on a matter concerning outstanding maize grain payment by a parastatal.

For MG, members constitute from SDC, traditional leadership and church bodies thereby ensuring the MG's message is spread and shared across various platforms.

Whilst the actual Mothers' Groups may not all exist post IGATE, the principle and concept of MG will remain through the various structures (traditional leaders, religious bodies, SDC).

One area of continued growth for IGATE is the integration of all the models such that no one model is viewed as an individual but as a contributor dependent on other models.

This is being promoted through the emphasis of the education of girls. Some progress has been noted but there is still room for growth regarding this, with MSC stories set to be the evidence of this integration.

In summary, sustainability of IGATE is instilled in the implementation and monitoring processes. IGATE team consult and involve relevant stakeholders at every stage of implementation and monitoring.

# 3 Conclusions

Several IGATE models or interventions were operational as of the midline data collection, including Power Within, Mothers’ Groups, BEEP, and VSL. On the other hand, several other interventions—Happy Readers, SDCs, CSGE, Channels of Hope, and Male Champions—had not yet been implemented or implemented fully as of the time of midline data collection. Furthermore, a number of treatment communities had not been exposed to all of the functional interventions, or had not been exposed to them for six months or longer, which limited the scope and depth of IGATE effectiveness. The midline analytical approach took these limitations into account, measuring the effects of ‘enough’ of the IGATE interventions against the changes in the control group.

Ultimately, to assess the effectiveness of the IGATE intervention as a whole, all interventions will need to be functioning. They will need to have had sufficient time to be incorporated into the intervention schools and communities. However, despite the limitations, it is clear that a change process is underway, with early effects on the ways in which families and communities support schooling.

Across most of the indicators in the logframe, IGATE has met or exceeded most midline targets, including: community engagement with development actors; households using VSL funds to start IGAs and using that income to support girls’ education; increased MG and other participants’ knowledge, awareness and skills on gender issues, and following up on GBV and other issues; BEEP participants’ use of bicycles to go to and from school; SDCs developing workplans and facilitating gender-equitable practices in schools; and the formation and functioning of PW clubs.

Both treatment and control group girls showed improved learning from baseline to midline. However, controlling for differences between the control and treatment groups, the IGATE interventions implemented to date, taken as a whole, have not had statistically significant effects on EGRA or EGMA assessment scores.

As with the literacy measure, there were no statistically significant effects of treatment interventions as a whole on mathematics scores. However, the PW treatment significantly increased several of the numeracy scores.

There were mixed results in terms of enrolment, attendance, and retention. At baseline, there was no statistical difference in enrolment rates between treatment and control groups, but by midline, enrolment rates were significantly higher for treatment than for control group girls. Taking into account the previously described inadequacy of attendance data, at both baseline and midline, and for both primary and secondary, girls in the control group were significantly more likely than those in the treatment group to have attended school most days it was open. Attrition rates were higher for treatment girls than for control girls.

Only about half of the planned IGATE interventions were active as of the midline data collection. As a consequence, some of the interventions designed to address barriers were not fully up and running, so effects on various barriers likely will not be maximized until later in IGATE’s implementation.

Economic factors: The full sample of treatment and control girls was from marginalised and disadvantaged backgrounds. Hence, while wealth effects were estimated, it is important to underscore that none of the girls was from a wealthy family. That said, learning outcomes in both literacy and mathematics showed significantly higher scores for girls from households with more resources (i.e., comparatively wealthy households). In addition, among girls who had dropped out of school, the monetary costs of schooling commonly were listed as factors in dropout, so this factor endures as a barrier to continued access.

School based factors: Long distances to school plague a great many children in Zimbabwe, and present a substantial barrier to access. The bicycle programme, BEEP, was newly underway at the time of midline, but qualitative information suggests that the bicycles are highly valued and used regularly by girls in the programme. As indicated in the logframe, 85 percent of girls participating in BEEP cycled to and from school during the five days preceding data collection. In addition, substantial numbers of girls stated that the toilets were not satisfactory at school, but there was no clear link to enrolment and attendance rates. Similarly, none of the girls who had dropped out of school said that corporeal punishment was a factor in dropout. Head teachers were asked whether the school has any ongoing measures to support marginalised girls. Almost 60 percent of treatment schools and just 40 percent of control schools have such support mechanisms.

Attitudes and support: Most of the IGATE interventions designed to address problematic attitudes and a lack of support for girls’ schooling had not been implemented as of the time of midline data collection, with the exception of Mothers’ Groups. These questions, then, will be explored more appropriately at endline.

Violence and safety: GBV was cited as a reason for dropping out by only one girl, suggesting that GBV rarely is a factor in dropout, and/or that GBV’s influence is a difficult construct to capture using the midline evaluation methods. Bolstering the latter interpretation is the fact that among girls who answered the question about the safety of travelling to school, about 20 percent said that it was “fairly difficult or unsafe” and a similar proportion said “very difficult or unsafe,” summing to nearly 40 percent.

Personal factors: About 4 percent of girls who had dropped out said that pregnancy was a factor in their dropping out; all of these girls were from the control group. About 5 percent said that their marriage was a factor in dropout.

*Trends for further exploration:* The IGATE project team also intends to explore further trends of interest. The MWAI evaluation team also notes that none of these trends is based on statistically significant findings.

For example, the IGATE team hypothesizes that the presence of the father in the household seems to have a negative effect on performance and will need to be explored further. It is possible that those whose fathers are absent are actually better off financially. Given the widespread migration of men for work, particularly to neighbouring countries, it is possible that absent fathers are sending remittances to the household. The positive relationship between a better economic condition on learning outcomes is noted on the analysis of the household wealth index and literacy outcomes above. Analysing the potential relationship between the father’s absence and the household’s economic condition will be probed for additional information.

Another example is the performance of the treatment group in the higher level reading fluency task (*egraorf2*), which has increased over and above the increase observed among students in the control group. The effect is statistically significant in the cross-sectional analysis. Another trend of interest to the Project team is the performance of the students exposed to the VSL and MG models.

The results show that there were no differences in the performance of the treatment and control groups in the lower level oral passage reading task (applied to all grades). However, there is a gain in performance in the higher level oral passage reading task, which applied only to the upper grades, suggesting the possibility of an effect of the treatment on the performance of older girls.

As noted, it is likely that the lack of an effect on lower grades is linked to the fact that two major government interventions focusing on literacy are taking place simultaneously to IGATE, covering all treatment and control schools. These interventions (the Early Grade Reading initiative and the Performance Lag Address Programme) focus exclusively on lower grades and were launched after IGATE had already begun its implementation. Although it might be argued that by affecting equally treatment and control schools, these interventions would not have an effect on IGATE results, this is not necessarily true. Reading fluency (as measured by *egraorf1*) has increased considerably compared to the baseline results for both groups: the difference between baseline and midline scores ranges from 86% (control) to 96% (treatment). It is highly likely that this increase resulted in groups reaching the maximum performance that could be expected at lower grades, particularly for students who are being taught in a second language and facing multiple limitations at school and home. It is also possible that the presence of three competing interventions (ERI, PLAP and IGATE) generated an additional burden for teachers in Grades 1-3, ultimately having a negative effect on the treatment group. Therefore, any beneficial effects from the IGATE treatment could not be visible at these grades.

On the other hand, students in upper grades did not benefit from other “competing” interventions. Additionally, older students, who face multiple barriers to learning due to having reached puberty, are expected to benefit considerably from the shifts in traditional gender norms promoted by IGATE. Therefore, the positive effect of IGATE on literacy outcomes becomes apparent (albeit not significant in the cohort analysis, but only in the cross-sectional analysis) among female students in upper grades, through the results of the higher level oral reading task (*egraorf2*).

# 4 Recommendations

1. Full implementation of all 9 interventions. A first recommendation is for all IGATE interventions to be implemented in the target schools and communities, as quickly as is practicable—while maintaining sufficient staff and participant capacity and intervention fidelity—to allow time for the model to function as a whole. In particular, Happy Readers, with its expected direct effects on reading skills, should be (and was) prioritised. It is important to ensure, of course, that the multiple interventions can be managed by the implementing teams and that they can be absorbed in the households, communities, and schools in target areas. With vehicle and other resource constraints that IGATE faces a thorough resource review is needed to facilitate the implementation of the remaining interventions.

2. Consider scaling up BEEP. Given the role of distance in constraining girls’ access to school, it is recommended that BEEP be scaled up fully, and that IGATE revisit the question of which girls are considered for participation. In addition, it is critical to ensure that support mechanisms (e.g., assistance mending flat tyres, doing overall bicycle maintenance, and so on; and ensuring that girls retain primary control of bicycles for use in getting to and from school) remain strong and are fully in place.

3. The evaluators and the IGATE project team have made suggestions throughout this document to expand programming where statistical significance has demonstrated impact as well as to explore emerging trends (e.g., the relationship between PW and numeracy sub-scores). These should be taken up in order to intensify impact.

4. Examine the GOZ literacy interventions in depth to understand whether EGRA (sub-tests) may be measuring the effects of these interventions. Two other literacy-focused interventions, both led by the government are currently taking place in targeted districts, working in treatment and control schools. EGRA results show an increase of 86%-96% in reading fluency scores from the baseline to the midline, indicating that these interventions may have already led to ceiling changes in both treatment and control groups.

5. Eliminate or modify substantially Payment by Results for IGATE. The UK Government through the GEC is piloting the Payment by Results (PbR) approach in the education sector that has been used in the health sector. The aim of PbR is to ensure that “every pound” the British people spend on development is used efficiently and effectively. The way in which PbR has been applied in the GEC to IGATE is fundamentally flawed. For the benefit of the girls and communities of Zimbabwe who are intended to be the beneficiaries of these activities, the fund manager should do away with the PbR, and IGATE should be encouraged to build on lessons learned to date as it proceeds with monitoring and evaluation from now until the end of the project. IGATE was ill-advised by the fund manager to have its sole target PbR indicator be an increase in the EGRA and EGMA. IGATE’s theory of change is holistic and comprehensive, and directly addresses the critical need to change social norms; however, the target indicator focuses only on girls’ literacy and numeracy outcomes as measured by the EGRA and EGMA tests.

* Improving literacy outcomes (what EGRA measures) among high-poverty, marginalised populations is closely connected to teaching and learning in school classrooms – exactly where IGATE implementers (and all NGOS) are *not* allowed to operate in Zimbabwe.
* In view of the foregoing, the extent of change pre-determined by the fund manager (based on a general literature review of projects and their range of targeted increase in standard deviations) for the PbR (i.e., EGRA) indicator was an overreach and is completely unrealistic.
* Although changing social norms can take decades or generations, the IGATE midline report findings point to relatively swift changes in the social norms that are increasing girls’ “opportunity to improve their lives through education” as called for by the GEC.  At least one measure of gender social norm change that relates directly to IGATE’s comprehensive theory of change should also have been considered as a key PbR indicator, monitored from the outset.
* Zimbabwe’s harsh economic and food insecurity realities should have been—and for the duration of IGATE GEC project—must be taken into consideration

7. Endline study preparation. For the endline evaluation, it is critical to ensure that there is sufficient time to develop tools, plan for, and implement evaluation activities. To the extent possible, it would be valuable to rehire high-performing enumerators who participated in baseline and/or midline evaluation activities.

5 Annexes

Annex 1: Logframe

Table A 1: Project performance against targets in logframe outputs

|  |  |  |  |
| --- | --- | --- | --- |
| **Output and Output indicators** | **Midline Target (planned)** | **Midline Target (achieved)** | **Variance between achieved & planned targets** |
| **Outcome:** 1 million marginalised girls across 22 countries able to complete a full cycle of education and demonstrate learning | | | |
| 1. Number of marginalised girls who have stayed in school through the life cycle of the project | 30,843 girls  (27,846 primary girls, 2,502 secondary girls, and 135 re-enrolled girls) | 27,532 girls  (23,499 primary and 4,033 secondary) | 3,311 below planned target |
| 2. Number of marginalised girls supported by GEC with improved learning outcomes | 24,387 girls  (22,378 primary girls, 2,009 secondary girls) | Both treatment and control group girls’ reading and math scores improved from baseline to midline. Controlling for various household and girl characteristics, girls exposed to the treatment as a whole did not show statistically significant gains over the control group in literacy or numeracy. For individual interventions, girls exposed to PW did show statistically significant gains on three math subtests and the math total. Girls exposed to MG and VSL interventions did not show any statistically significant gains over control girls. |  |
| 3. Additional funds secured during the life of the project alongside DFID GEC funds to support the marginalised girls | £315,354:  £218,556 (in time contributions provided by SDC members and MGs), and £11,413 in other community in-kind and cash contributions to support initiatives for girls' education | £229,969 total achieved by midline (73% of target) | £85,385 below planned target midline |
| 4. Project has established mechanisms to enable marginalised girls to complete a full cycle of education | Communities in 200 target schools' catchment areas have functional initiatives and have established partnerships to support girls' education | Communities in 258 target schools’ catchment areas have established at least one functional initiative | Project exceeded target by 29% (58 schools |
| 5. Number of communities reporting increased engagement with significant development actors (State, Private Sector, and other Civil Society Organisations) on barriers to girls’ education | 25% of the communities conducted successful advocacy initiatives for girls’ education | 47% | Caregivers reporting engagement with organisations that make it easier for girls to go to school |
| **Output 1: Increased Household economic capacity to support and prioritise girls' education** | | | |
| 1.1 Percentage of households using VSL funds to start IGAs | 20% above baseline (33% of surveyed households); so target is 40% | 50% | Exceeded target by 10 percentage points |
| 1.2 Households using income generated as a result of VSLs to invest in education for girls | 20% of HHs involved in the project using VSL to support girls' education | 55% | Exceeded target by 35 percentage points |
| 1.3 Percentage of households with adolescent girls investing in girls sanitary requirements (VSL households) | No target set | 34% | N/A |
| **Output 2: Target communities are actively supportive of equal education opportunities through Mothers Groups, School Development Committees, local leaders and girls themselves** | | | |
| 2.1 Participants of MGs, SDCs and local leaders increased their knowledge, awareness and skills on gender specific issues | 50% of the mothers , SDC members and traditional/religious leaders demonstrate increased knowledge, awareness and skills on gender issues | 91% | Exceeded target by 41 percentage points |
| 2.2 MGs, traditional leaders and church leaders, following up on truancy, drop-out, GBV and leading initiatives for school improvement | 50% of the schools (233) have active MGs traditional leaders and church leaders, following up on cases of truancy, drop-out and GBV and leading initiatives for school improvement | 76% | Exceeded target by 26 percentage points |
| 2.3 Percentage of IGATE bicycle beneficiary girls who cycled to and/or from school within the week of the survey (5 school days) the survey | No target set | 85% | N/A |
| **Output 3: SDCs have the capacity to lead participatory management of schools** | | | |
| 3.1 Initiatives introduced by SDCs to address issues affecting girls’ education | 25% of SDCs implementing initiatives in the workplan in partnership with Mothers Groups to address issues related to girls' education | 75% | Exceeded target by 50 percentage points |
| 3.2 SDC following-up on gender equitable practices within the school | 50% of schools (234) with plans have determined actions to implement a code of conduct and gender equitable practices in the school, with active follow up from SDCs | 88% | Exceeded target by 38 percentage points |
| **Output 4: Target communities are actively improving the learning environment for girls** | | | |
| 4.1 Decrease in the percentage of girls who point out negative aspects of school | 30% decrease in the percentage of girls who point out negative aspects of school (8 percentage point decrease to 16% of girls) | N/A. The baseline and midline survey questions were not identical; the decrease could not be tracked. |  |
| 4.2 Proportion of schools with functional abuse reporting mechanisms | 50% of schools have functional reporting mechanisms for abuse | 30% of head teachers who stated someone had notified the Child Protection Committee of any abuse cases in past 6 months | Below target by 20 percentage points |
| 4.3 |  |  |  |
| **Output 5: All schools provide an opportunity for girls’ personal development through the PW model** | | | |
| 5.1 Increased percentage of girls who believe that they are listened to and able to participate at home, school and peer groups (defined per average score in Youth Leadership Index scores) | 15% (8.7) increase from the baseline to 67 | N/A. Youth Leadership Index was not conducted at midline because scores at baseline were very high, and much higher than expected. Therefore, the required level of increase is not possible to achieve given these results. | N/A |
| 5.2 Proportion of schools with active power within clubs | 50% of schools have active PW clubs | 81% | Exceeded target by 31 percentage points |
| 5.3 Percentage of school girls form Happy Readers targeted schools, who report increased reading sessions to a teacher or caregiver/volunteer |  | N/A because Happy Readers was not yet implemented at midline. |  |

Table A 2: Data sources for logframe outcomes and outputs

|  |  |
| --- | --- |
| **Outcome/Output** | **Source** |
| **Outcome 1:** 1 million marginalised girls across 22 countries able to complete a full cycle of education and demonstrate learning | |
| 1: Number of marginalised girls who have stayed in school through the life cycle of the project | ????? |
| 2: Number of marginalised girls supported by GEC with improved learning outcomes | EGRA, EGMA |
| 3: Additional funds secured during the life of the project alongside DFID GEC funds to support the marginalised girls | Monitoring data |
| 4: Project has established mechanisms to enable marginalised girls to complete a full cycle of education | Project reports |
| 5: Number of communities reporting increased engagement with significant development actors (State, Private sector, and other CSOs) on barriers to girls education | Question D36 (Caregiver Tool) “In the past two years, have any people or organizations carried out activities to make it easier for girls around here to go to school and learn? (e.g., through organizing campaigns, community meetings, learning clubs, etc.) |
| **Output 1: Increased Household economic capacity to support and prioritise girls’ education** | |
| 1.1: Percentage of households using VSL funds to start IGAs | I\_P2\_10 (Caregiver Tool) How did you spend the loan borrowed? [multiple answers allowed]  To pay your daughter’s school fees  To start Income Generating Activity  To buy food  To pay for medical expenses  To pay for social functions (funeral, etc.)  Other |
| 1.2: Households using income generated as a result of VSLs to invest in education for girls | I\_P2\_13 (Caregiver Tool) Have you used any of the earnings from your IGA to pay schooling costs for [GIRL]?  Yes/No |
| 1.3: Percentage of households with adolescent girls investing in girls sanitary requirements (VSL households) | I\_P2\_14 (Caregiver Tool) In the past 12 months have purchased sanitary pads  Yes/No |
| **Output 2: Target communities are actively supportive of equal education opportunities through Mothers Groups, School Development Committees, local leaders and girls themselves** | |
| 2.1: Participants of MGs, SDCs and local leaders increased their knowledge, awareness and skills on gender specific issues | I\_P2\_8 (Caregiver Tool) If yes, has she (have you) acquired more knowledge, awareness, and skills related to gender issues?  Yes/No; Did not participate; Don’t know |
| 2.2: MGs, traditional leaders and church leaders, following up on truancy, drop-out, GBV and leading initiatives for school improvement | I\_P2\_13 (Caregiver Tool) Has the MG/FG helped address problems in the community?  Yes/No |
| 2.3: Percentage of IGATE bicycle beneficiary girls who cycled to and/or from school within the week of the survey (5 school days) the survey | P1\_10 (Child Tool) When is the last time you rode the bicycle to school?  Today; This week; Last week; Last month; Longer ago than last month |
| **Output 3: SDCs have the capacity to lead participatory management of schools** | |
| 3.1: Initiatives introduced by SDCs to address issues affecting girls’ education | D5 (Head Teacher Tool) |
| 3.2: SDC following-up on gender equitable practices within the school | D3 (Head Teacher Tool) |
| **Output 4: Target communities are actively improving the learning environment for girls** | |
| 4.1: Decrease in the percentage of girls who point out negative aspects of school | E8\_b (Child Tool) Qualitative info as well. This represents girls that disagree strongly that they are afraid at school.  E8. I am now going to read some statements about how you may feel at school. Please tell me whether you agree or disagree with these statements.  E\_8\_a. When I get up in the morning I am eager to go to school  Agree a lot; Agree a little; Disagree a little; Disagree a lot; Don’t know  E\_8\_b. I feel afraid at school  Agree a lot; Agree a little; Disagree a little; Disagree a lot  Don’t know |
| 4.2: Proportion of schools with functional abuse reporting mechanisms | E5 (Head Teacher Tool) In the past six months, has anyone notified the Child Protection Committee of any abuse cases?  Yes/No  E6. If yes, how many? |
| **Output 5: All schools provide an opportunity for girls’ personal development through the PW model** | |
| 5.1: Increased percentage of girls who believe that they are listened to and able to participate at home, school and peer groups (defined per average score in Youth Leadership Index scores) | NOTE: The section on YLI was removed for the midline. |
| 5.2: Proportion of schools with active power within clubs | P4.1 (Child Tool) P4\_1. Is there a PW club in your school?  Yes/No; Don’t know  To calculate this, first filter all those children who said there is PW club at their school. Then count each school once. The total equals 69 schools that have PW clubs, which represent 81.2%. (69 x 100/85) |
| 5.3: Percentage of school girls form Happy Readers targeted schools, who report increased reading sessions to a teacher or caregiver/volunteer | E\_10\_a (Child Tool)  E\_10. Now I will read some statements about reading. Do you agree or disagree with the following statements?  Continue  E\_10\_a. I enjoy reading  Agree a lot; Agree a little; Disagree a little; Disagree a lot  Don’t know |

Annex 2: Outcomes Spreadsheet

The formulas in the Outcomes Spreadsheet are locked and inaccessible, which has resulted impeded the Evaluators efforts to complete this spreadsheet with accuracy. Since we cannot be sure that the correct numbers are being entered, we have attached the completed table as well as an alternate table for reference. (Note: some of the values are very different in the two spreadsheets.)

Annex 3: Changes to Project Design

Table A 3: Intervention types and changes to interventions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Intervention types** | **Planned at proposal stage (X)** | **Added?** | **Removed?** | **When?** | **Describe change and rationale** |
| Improving household income levels (using the VSL model) | X |  |  |  |  |
| Dialoguing with community on education policies and how they support girls’ education (using the CSGE model). | X |  |  |  |  |
| Forming a community system to support girls’ education access (using the MG model) | X |  |  |  |  |
| Community participation on school governance matters relating to girls’ education (using the SDC model). | X |  |  |  |  |
| Support to menstrual hygiene management (promoting RUMPS). | X |  |  |  |  |
| Life skills sessions aimed at improving girls self confidence (using the PW model). | X |  |  |  |  |
| Religious perspective of girls’ education access challenges and opportunities (working with religious bodies, EFZ and UDACIZA). | X |  |  |  |  |
| Engaging males as champions of girls’ access to education (using the Male Champion model). |  | X |  | Year 3: from April 2015 | Identified the need to have males engaged in supporting girls’ education as positive role models and agents of change. |
| Support literacy teaching in schools by teacher training and reading material provision (using the Happy Readers model). |  | X |  | Year 3: from April 2015 | Added when PbR was changed and focused only on learning outcome, as none of the models initially proposed were directly engaged with classroom teaching and learning. |
| Bicycle distribution to school children (70% girls 30% boys) through the BEEP model |  | X |  | After baseline: after May 2014 | Added to address long walking distances from home to school identified at baseline as a prominent barrier to educational access for girls (and boys). |

Annex 4: Midline Research Methodology

This section describes the research methodology for the midline evaluation of the Zimbabwe IGATE programme, including: description of the research tool, sampling strategy and size, data collection and management process, learning outcomes, and a description of the DiD estimation strategy used to determine statistical significance of the outcome variables. The midline evaluation will use a randomized control trial design complemented with a significant qualitative methodology component that was used for the baseline study and modified for the midline evaluation to capture information on the IGATE interventions that have been implemented. In addition, the supervisors collected Most Significant Change stories at midline.

**Sampling Strategy and Size**

The mid-term evaluation was conducted in the 85 sample points (school catchment areas) assessed during the baseline, targeting specifically a list of 2,900 girls identified at baseline (cohort tracked) for measuring changes and effects amongst target groups from the baseline stage and at future points in time throughout the life of the project.

Eighty-five (85) sample points (i.e., school catchment areas) were assessed during the baseline, targeting specifically a list of 2,900 girls identified at baseline (cohort tracked) in 10 districts for measuring changes and effects amongst target groups from the baseline stage and at future points in time throughout the life of the project. As WV recommended, an additional 350-390 girls were included due to attrition or migration of those girls who participated in the baseline. This addition of 15% to the sample at midline boosted the sample size for the endline evaluation.

Since the intervention group consists of 48,773 girls in 467 schools, with an average of 104 girls per school. The baseline, midline, endline sample size targets 1,950 girls (4% of intervention group) in 53 treatment schools (11% of treatment schools) , so the midline data collection involved an average of 39 girls per school (some schools may have a slightly larger or smaller sample)[[15]](#footnote-15). Prior to the midline data collection, intervention programmes had not started in all of the treatment group areas. Those schools which did not receive at least two of the treatments for more than six months prior to the midline data collection were considered as partially treated. This narrowed treatment assignment in the analysis considers 42 schools with full treatment and 11 schools with only partial treatment at the time of the midline data collection. Girls from the 11 partially-treated schools were excluded from the midline analysis. As The baseline selection process identified girls for the study based on random household sampling, however, so not all the girls in the baseline were from the designated treatment schools but were from schools in the same or other wards or districts. The control group consists in 950 girls in 33 control schools (29 girls per school).

**Sampling Strategy**

**Qualitative Data Sampling Strategy**

There were 10 qualitative data collection activities (plus the DEO KII) per district. There is an average of 8 to 10 sampling points (SPs) per district. However, in some districts there are only three or four SPs. Enumerators collecting data in districts with 10 or more sampling points are instructed to conduct the 10 qualitative data collection activities (KII or FGD) in different sampling points, if possible. Enumerators collecting data in districts with less than 10 sampling points will have to conduct more than one qualitative data collection activity (KII or FGD) in some sampling points.

Focus Group Discussion sampling strategy

Parents/Head of household/Caregivers: Recruiting Instructions

1. 6-12 participants per group.
2. 30 years and older, with a broad range of ages.
3. Only one parent/HH/caregiver per household should participate in FDGs, if possible, to ensure that many different households are represented.
4. Parents will be recruited purposively from the HH survey to INCLUDE PARENTS OF GIRLS WHO ARE OUT OF SCHOOL and PARENTS OF OTHER MARGINALISED GIRLS (e.g., female-headed household, HIV-affected household, minority ethnic group, parents of a girl with physical disabilities, a girl with learning difficulties, girl with a child, a married girl etc.).
5. The table below shows the four categories of parents/Head of household/Caregiver FGD to be conducted in each district.

In-school Girls: Recruiting Instructions:

* 1. 6-12 participants per group.
  2. 12-15 years old (RECRUIT GIRLS ACROSS THIS AGE RANGE, NOT ONLY AT THE YOUNGER OR OLDER END OF THE RANGE)
  3. Recruit in-school girls from different households, including girls who are at risk of dropping out.
  4. Girls will be recruited purposively from the HH survey to include a mix of less and more-vulnerable girls (e.g. with physical disabilities, learning difficulties, from minority ethnic group, from single-parent households, HIV-affected, girls who married early, young mothers).

**Key informant Interview and Most Significant Change Sampling Strategy**

See Table A3 below for details regarding selection criteria and process for each type of key informant interview and focus group discussion. Enumerators will help identify potential MSC stories, since participants in all FGDs/KIIs, except for out of school girls, will be asked to discuss any changes to girls’ education. The supervisor will then follow up by conducting brief focused interviews with people who can provide insights or alternative perspectives regarding the identified MSC story.

Table A 4: Qualitative sampling strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data collection**  **method** | **Participants** | | **Participant selection** | |
| **Type** | **Number** | **Criteria** | **Process** |
| **KII**  (8 KII) | DEO | 1 | DEO | No selection process |
| Teacher | 1 | 1. Teacher and Head of School must be from different schools.   AND   1. **must** be involved in at least one IGATE intervention | Randomly select a teacher, head of school, community leader and church leader **from different sampling points** to ensure as wide a representation of participants as possible. |
| Head of School | 1 |
| Community leader | 1 | 1. **must** be from a different community as Church leader   AND   1. **must** be involved in at least one IGATE intervention |
| Apostolic or Evangelical Church leader | 1 | **1) must** be from a different community as community leader  AND  **2) must** be involved in Channels of Hope/Engaging religious leaders intervention\*\* |
| Out of school girl | 2 | Out of school | Select the out of school girls and out of school boy from **different sampling points** to ensure as wide a representation of participants as possible |
| Out of school boy | 1 | Out of school |
| **FGD**  (3 FGDs) | Parents/  Head of Household/ Caregiver | 6-12 | **Must** have been trained to participate in at least one IGATE intervention (For example, MG, SDC, CSGE, BEEP, VSL) | Randomly select from HHS participants who are willing and available to participant. |
| Parents/  Head of Household/ Caregiver | 6-12 | **NOT** trained to participate in one IGATE intervention | 1) Randomly select from HHS participants who are willing and available to participant  2) Select some participants who live close to the school and others that live far from the school\* |
| In-school girls | 6-12 | **Must** be a member of PW/Girls club (Each club has a maximum of 50 members) | Select every third girl from either the club list or in person. |
| **MSC stories**  (2 stories) | Identified from KII and FGD findings | Depends on the nature/topic of the MSC story identified  **NOTE:** Once a supervisor identifies a suitable MSC story, he/she needs contact Maggie with a brief description of the possible story. Maggie will track the topics of the MSC stories to ensure that a variety of topics are covered and advise the supervisor on whether to move forward on that story or seek out a story on an alternative topic. | | |

**Quantitative Data Sampling Strategy**

The quantitative data sampling strategy includes a technical document outlining instructions for the supervisors and included as part of the supervisor’s manual. As such, it begins with the highlighting of critical elements and proceeds to a detailed discussion of recommendations for linking girls from the baseline to the midline, tracking guidelines, the plan for intensive and random tracking, the plan for replacement, ongoing monitoring of attrition, and guidelines for the sample boost at midline.

**Summary of most important information**

1. The aim at midline is to conduct 39 learning assessments (EGRA/EGMA) at each of the 85 Sampling Points (SPs), including both treatment and control schools. The priority was given to tracking girls from the baseline to conduct the midline evaluation learning assessments.
2. For baseline follow-up girls, EGRA/EGMA will be administered to all girls in grades 2-7, and Forms 1 to 4. (Tablets have screening questions to ensure correct girls are selected for EGRA/EGMA.)
3. For new in-school girls, EGRA/EGMA will be administered to all new in-school girls in grades 2-7, and Forms 1, to 3.
4. YLI will be administered to girls 12 years old and above. (Tablets have a screening question to ensure correct girls are selected for YLI.)
5. Sampling will be based broadly on the following steps (more detail given in sections that follow overleaf)

5.1) Interview original households and girls. Use the list of names, baseline ID numbers and contact information to track the original households and girls. It is important to cross-check the name and baseline ID.

5.2) Track down girls who have moved but are still in the same ward (and interview them and their primary caregiver). (If they are married or for other reason they are now head of household or primary caregiver, do not interview them. They cannot be interviewed as a girl and as a primary caregiver or household head.) Three attempts to track down the girl must be made before she is to be replaced.

5.3) Even though intensive tracking of girls is preferred, it may not be realistic given the timeline and costs associated. Therefore, girls should be replaced (substituted) where (1) and (2) is not possible. The replacement priority is to first identify an eligible girl from the same classroom or grade level. If this is not possible, identify a girl from the same grade level and in the same school. If no girl in the same classroom or grade level at the same school is available, intent to replace the original girl with an eligible sister who attends the same school. Finally, if none of these options are viable, obtain a roster of all eligible girls within the missing girl’s school and randomly select one to replace her.

5.4) If you have still not reached your target per SP of 39 learning assessments then you will add to sample point. This addition to the sample is as part of the 15% sample size boost to account for attrition at the time of the endline evaluation. If 39 learning assessments have not been conducted at a sample point, the first priority should be to identify girls who were interviewed at the baseline but were too young to complete the learning assessment at that time. Girls who were in Grade 0 at the baseline will be in Grade 2 now and can be added to the midline sample and complete EGRA/EGMA. If after adding in these girls there are still less than 39 girls with learning assessments for the SP, then randomly select girls from school who are in Grade 2 up to Form 3 (to be eligible for EGRA/EGMA).

1. **IMPORTANT:** Even if you go to schools first to establish if girls are still there and are willing to be interviewed, DO NOT interview a girl without obtaining consent of parent/ guardian, so you will have to get this first (and do household interview first) before doing the girl’s interview and the EGRA/EGMA.

**Sample Size and Sampling Points**

At baseline, there were a total of 2,935 girls surveyed. Of these girls who participated at baseline, 1,863 were in (ITT) treatment sample points and 1,072 were in control sample points. At midline, a total of 3,811 girls participated in learning assessment. Of these girls who participated at midline, 2,379 were in (ITT) treatment sample points and 1,432 were in control sample points. The girls in the midline evaluation range in age from 6-17 years old, with an average age of 11.78 years old. Most of the girls are in primary school (83.26%), while a small percentage are in secondary (16.74 %). The grades range from Primary 1 (Grade 1) to Secondary 3 (Grade 10), as summarized in Table A4 below which details the sample size of girls identified in the midline assessment on learning assessments.

Table A 4: Summary of sample size by grade, for girls with learning outcomes

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Treatment** | **Control** | **Total** |
| **Baseline** | **1,863** | **1,072** | **2,935** |
| **Midline** | **2,379** | **1,432** | **3,811** |
|  | ***Midline Grade Level*** | | |
| No Grade | 10 | 3 | 13 |
| 0.42% | 0.21% | 0.34% |
| Primary 1 (Grade 1) | 180 | 119 | 299 |
| 7.57% | 8.31% | 7.85% |
| Primary 2 (Grade 2) | 318 | 178 | 496 |
| 13.37% | 12.43% | 13.01% |
| Primary 3 (Grade 3) | 295 | 154 | 449 |
| 12.40% | 10.75% | 11.78% |
| Primary 4 (Grade 4) | 297 | 162 | 459 |
| 12.48% | 11.31% | 12.04% |
| Primary 5 (Grade 5) | 327 | 201 | 528 |
| 13.75% | 14.04% | 13.85% |
| Primary 6 (Grade 6) | 374 | 206 | 580 |
| 15.72% | 14.39% | 15.22% |
| Primary 7 (Grade 7) | 215 | 134 | 349 |
| 9.04% | 9.36% | 9.16% |
| Secondary 1 (Grade 8) | 185 | 152 | 337 |
| 7.78% | 10.61% | 8.84% |
| Secondary 2 (Grade 9) | 101 | 62 | 163 |
| 4.25% | 4.33% | 4.28% |
| Secondary 3 (Grade 10) | 44 | 28 | 72 |
| 1.85% | 1.96% | 1.89% |
| (missing)[[16]](#footnote-16) | 33 | 33 | 66 |
| 1.39% | 2.30% | 1.73% |

**Changes to Counterfactual Groups**

One of the 32 control schools received the intervention and for the purposes of analysis is now considered a treatment school, thus the total number of treatment schools has increased from 52 to 53.

**Changes to Longitudinal Design**

Since IGATE was implemented using a phased approach, all the foundational models (VSL, MG, PW) had not yet reached or only recently had been introduced to 11 sample schools. These 11 schools that had not been fully exposed to the treatment were not included at the midline will be included in the endline evaluation, taking into account the exposure time as a key variable in the analysis.

**Data Collection and Management**

This section summarizes the data collection and management process at midline. Miske Witt and Associates Inc. and affiliates comprised the international evaluation team. This included Shirley Miske (Evaluation Director); Kristi Fair (Evaluation Technical Lead/Quantitative Data Expert); Nick Shawa (Data Monitoring & Analysis Expert, Field Co-Lead); Kara Janigan (Qualitative Data Lead/GEI Lead; Field Co-Lead); Karen Monkman (Qualitative Training Expert); Paul Glewwe (Statistician); Brooke Krause, Aine McCarthy, and Ali Joglekar (Evaluation Technical Assistants); Raya Hegeman-Davis (Qualitative Data Analyst), Mary Faith Mount-Cors of EdIntersect (EGRA Recalibration Expert); Isabelle Duston, affiliated with EdIntersect (Evaluation EGRA/EGMA Technology Lead); Kathy Bakkenist (Project Administrator); Sarah Koehler and Anna Pease (Project Assistants). The national evaluation team involved in data collection comprised Target Research members: Caroline Trigg (Managing Director), Margaret Magadza (Senior Project Manager), Kevin Chikwava (IT Specialist - Q Partnership), and Deborah Gundlach (Administrative and Logistics Manager).

**Data Collection Process**

Data was collected by Target Research, the same organisation that collected the baseline data in partnership with World Vision. Midline data collection occurred between June 15 and August 7, 2015. Data Collection Supervisors were as follows: Gift Murombo (Gokwe North and South Team 1), Blessing Masumba (Gowke North and South Team 2), Oliver Gore (Mberengwa Team 1), Memory Takavarasha (Mberengwa Team 2), Rodwell Chaitezvi (Chivi Team), Brian Mgwenya (Beitbridge and Mangwe Team), Ivy Makeleni (Binga Team), Simbarashe Manyumwa (Lupane Team), Ospar Mutami (Insiza Team), and Zenzile Sibanda (Nkayi Team). Data collection was conducted in the local languages of Shona and Ndebele. When it was determined that not all the girls from the baseline study had been assessed for the EGRA and EGMA during the June through August data collection period, a follow-on data collection for an additional approximately 500 girls took place in September 2015.

**Data Management Process**

The quantitative data were collected using the software Tangerine using Tablets. The survey responses were transferred into the statistical package SPSS, where they were cleaned and merged. The data cleaning and merging process involved a number of steps over a three-month period, as has been described throughout the document. Finally, the midline data were merged with the baseline data using unique identifiers. Once the quantitative data were merged, the EGRA and EGMA scores were calculated. Next, the descriptive statistics and group differences were tabulated using SPSS. For the empirical analysis of the DiD estimators, the variables used in this analysis were transferred into the statistical program STATA.

**Description of Research Tool**

The following table summarizes the qualitative and quantitative instruments used in the midline data collection.

Table A 5: Midline data collection instruments

|  |  |  |
| --- | --- | --- |
| **Midline Data Collection Instruments** | | |
| **Data Collection Method** | **Type of Instrument** | **Type of Participant** |
| Qualitative | Focus Group Discussion | Parents/Head of Household/ Caregiver |
| In-school girls |
| Key Informant Interview | District Education Officer |
| Teacher/ Head Of School |
| Church/Community Leader |
| Out of school girl/boy |
| **Most Significant Change story** | Depends on the nature/topic of the MSC story identified (participants could be any of the above) |
| Quantitative | **Survey** | Household Survey: First Informant |
| Household Survey: Caregiver |
| Household Survey: Child |
| Head of School Survey |
| Teacher Survey |

Focus group discussions with parents, heads of households and caregivers included questions about girls’ and boys’ education in the community generally, and then shifted focus to girls’ and boys’ experiences in school. Similarly, there were focus group discussions with in-school girls. Interviews with key informants included district education officers (DEO), teacher and heads of school, community and church leaders, and out-of-school girls and boys.

The Most Significant Change (MSC) approach is a qualitative method. It is a “story” approach. The purpose of this approach is to enable a researcher to first identify a story of “significant change” as expressed by someone in a community where an intervention or project is being (or has been) implemented. The researcher then collects rich descriptive data related specifically to that story.

When using this method, a researcher collects data not only from that person who first told the “MSC story” but also from others who can provide insights or alternative perspectives to this person’s story, thus providing data that deepens the researcher’s understanding of the story. This additional data may be qualitative and/or quantitative, depending on the nature of the story. A description story can be enriched if some statistics related to the story can be collected. For example, if the MSC story is about a girl’s experience in a girl’s club then it would be good to know such things as the number of girls in her girls’ club and the number of girls clubs in the district. While the MSC story will focus on one particular person or situation, the statistics can help us to understand to what extent others are involved in the intervention in other communities. Findings from these various data sources are analyzed and can be written up in a story (or case study) format.

In this evaluation, the MWAI evaluation team will assess the progress of the various indicators at mid-point against context-specific findings from the baseline, as well as against each initiative, taking into account that several of the initiatives have been introduced only recently to the project. Specific indicators include (but are not limited to) the IGATE logframe, since the project is also interested in tracking unintended consequences of the intervention, positive and negative.

Table A 6: Outcome level indicators suggested (TOR)

|  |  |
| --- | --- |
| Outcome level Indicator | Measured by . . . |
| 1. # marginalised girls who have stayed in school through the life cycle of the project | Retention  (School Rosters; EMIS data) |
| 2. # marginalised girls (supported by GEC) with improved learning outcomes | EGRA and EGMA Average Scores |
| 3. Additional funds secured during the life of the project alongside DFID GEC funds to support the marginalised girls | (Value in Sterling Pounds) |
| 4. Project has established mechanisms to enable marginalised girls to complete a full cycle of education | Functional mechanisms established |
| 5. Number of communities reporting increased engagement with significant development actors (State, Private Sector, and other CSOs) on barriers to girls’ education | the Engagement and Influence Matrix |

Table A 7: Output level indicators suggested

|  |
| --- |
| Output level indicators |
| 1.1 Percentage of households using Village Saving and Lending funds to start Income Generating Activities |
| 1.2 Households using income generated as a result of VSLs to invest in education for girls |
| 1.3 Increased percentage of men supporting girls' education needs |
| 2.1 Participants of MGs, SDCs and local leaders increased their knowledge, awareness, and skills on gender specific issues |
| 2.2 MGs, traditional leaders and church leaders, following up on truancy, drop-out, GBV and leading initiatives for school improvement |
| 2.3 Percentage of girls benefiting from bicycles who report increased school attendance |
| 3.1 Initiatives introduced by SDC to address issues affecting girls education |
| 3.2 SDC following-up on code of conduct and gender equitable practices within the school through creation of school contract |
| 3.3 Increase in percentage of teachers who acquired improved teacher training |
| 4.1 Decrease in the percentage of girls who point out negative aspects of school |
| 4.2 Reported and resolved incidences of in-school abuse |
| 4.3 Percentage of decrease in the number of parents that indicate household chores and violence at home, in school and on the way to school as reasons for girls not to attend school |
| 5.1 Increased percentage of girls who believe that they are listened to and able to participate at home, school and peer groups |
| 5.2 Increase in girls' participation in extracurricular activities (at least once a month) and civic action initiatives (at least once a quarter) |
| 5.3 Percentage increase in girls accessing and using English and Maths study material |

**Learning Outcomes**

The EGRA and EGMA are used as outcomes measuring literacy and numeracy both at baseline and midline. To reconcile differences in the two EGRA stories used from baseline and midline, we used the following equating procedure.

**EGRA Equating Methodology**

The stories read by survey participants at baseline and midline are different; this document outlines a method of equating the two stories so that results are comparable. The objective of the midline EGRA, by Isabelle Duston, MWAI, was to be similar to the baseline story. In the letter identification part of the test, the letter frequencies were considered and in the invented word decoding, and some of the existing words were used and mixed or slightly modified. For the short reading passage, there were a similar number of words per sentence and per passage, as well as the same type of vocabulary, per RTI recommendations.

In order to equate the two stories, a subset of participants read both versions (baseline and midline) of the story during the midline data collection. Figure 1 shows a scatter plot comparing the baseline and midline words per minute for the two stories. The results from the reading of the two different stories by the same youth at the time of midline data collection are used to equate the two stories using a linear and quadratic regression method. The equation below represents the relationship between a story at baseline and a story at midline. Using statistical software package, we estimate the coefficients of Equation (1).

(1)

**Findings and Suggestions regarding EGRA Equating**

After running the above regression, we first tested whether the constant term ( is equal to 0 and whether the coefficient is equal to 1. In the analysis for Story 1, we found that the constant term is not statistically different from 0 and the coefficient is not statistically different from 1 (p-value= 0.6793). These results indicate that the difference in the distributions of the two stories is not significantly different and that equating is not necessary for Story 1.

The same constant and coefficient tests were performed for Story 2. The p-values of <0.001 indicates the constant is statistically different from 0 and that the coefficient is statistically different from 1; thus equating for Story 2 is necessary. Table A8 shows the findings from the regression estimating the relationship between the baseline and midline readings of Story 2. This table shows the average relationship between the stories, using data from all grades. Based on these findings, it is recommended that the EGRA scores at midline be adjusted for comparison across time periods.

Table A9 shows the regression estimates by grade level for Story 2. Figure 2 shows the cumulative distributions of each story by grade level. The figure shows that the distributions vary by both constant values and by different slopes. We explored the effect by grade level, however, the size of the coefficients and constants are relatively similar. Further, the difference in the stories read at baseline and at midline should affect all students. Thus, we recommended equating the baseline and midline values of Story 2 for the aggregated sample of students rather than by individual grade level. Based on this information, we recommend that the midline scores for Story 2 be adjusted using the formula in Equation (2) for all students:

(2)

Figure 1: Scatter plot of baseline and midline words per minute for story 1 and 2

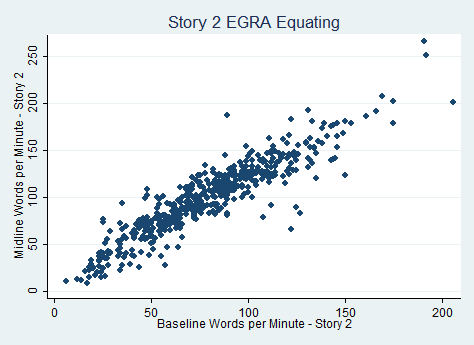
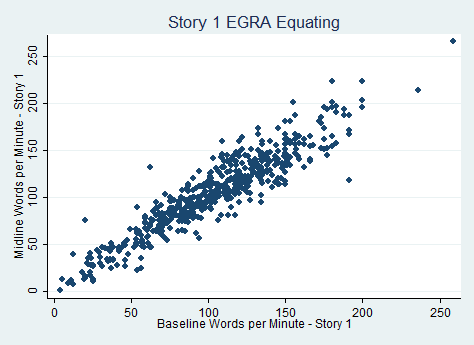


Table A 8: EGRA equating regression estimate results

|  |  |
| --- | --- |
|  |  |
| VARIABLES | Baseline Words per Minute - Story 2 |
|  |  |
| Midline Words per Minute - Story 2 | 0.779\*\*\* |
|  | (0.016) |
| Constant | 1.893 |
|  | (1.653) |
|  |  |
| Observations | 490 |
| R-squared | 0.838 |
| Standard errors in parentheses |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 |  |

Figure 2: Distribution of EGRA words per minute by story

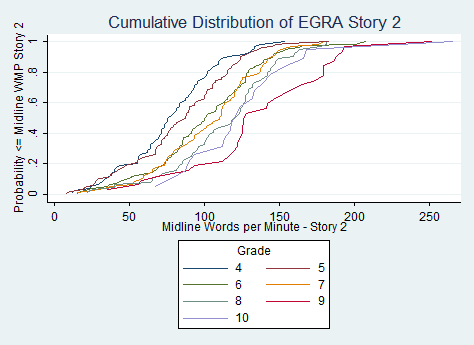
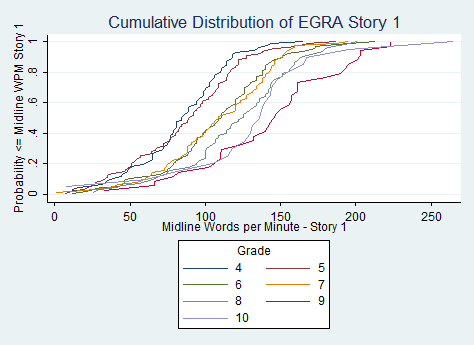


Table A 9: Story 2 EGRA equating regression estimate results by grade level

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
|  | Grade | Grade | Grade | Grade | Grade | Grade | Grade |
| VARIABLES | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  |  |  |  |  |  |  |  |
| Midline Words per Minute  - Story 2 | 0.767\*\*\* | 0.599\*\*\* | 0.468\*\*\* | 0.624\*\*\* | 0.995\*\*\* | 1.118\*\*\* | 1.185\*\*\* |
| (0.204) | (0.125) | (0.134) | (0.175) | (0.209) | (0.270) | (0.336) |
| Midline Words per Minute Squared - Story 2 | -0.001 | 0.001 | 0.002\*\* | 0.001 | -0.001 | -0.001 | -0.001 |
| (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Constant | 3.467 | 10.035\* | 18.518\*\*\* | 8.521 | -11.324 | -17.761 | -21.649 |
|  | (7.775) | (5.070) | (6.879) | (8.462) | (10.920) | (18.310) | (25.415) |
|  |  |  |  |  |  |  |  |
| Observations | 73 | 106 | 120 | 73 | 64 | 32 | 19 |
| R-squared | 0.710 | 0.805 | 0.802 | 0.859 | 0.847 | 0.839 | 0.859 |
| Standard errors in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |

**Statistical Significance Measured by DiD Estimation**

Statistical significance of this achievement from baseline to midline was calculated using multi-variate cohort approach DiD estimators. The following model is used:

(3)

In this model, Equation (3) shows a simple regression analysis including a variable, , indicating participation in the programme, taking on the value 0 for girls in the control group and taking the value 1 for girls in the intervention group, for the individual girl (subscript ). The coefficient of interest is , the coefficient on the treatment group participation. Covariates are included in the vector, and is a residiual term.

Multi-variate regression is used to control for additional variables to account for a range of demographic and household characteristics. Table A10 below shows a covariate balancing table with potential co-variates for the full-sample using the ITT designation. There is evidence of unbalance in the child’s age, grade, secondary school status, for both baseline and midline assessments. There is also unbalance in the frequency of the child’s illness and whether the father lives in the household at baseline. While the child’s age, grade and secondary status could be included in the regression model, only grade was chosen due to the potential for multicollinearity between these three variables.

Table A 10: Covariate balancing table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Obs | |  | Mean | |  |  |
| Variable |  | Control | Treatment |  | Control | Treatment |  | t-statistic |
| Child's Age (years) |  |  |  |  |  |  |  |  |
| Baseline |  | 969 | 1,645 |  | 10.020 | 9.776 |  | 2.415\*\*\* |
| Midline |  | 1,348 | 2,256 |  | 12.073 | 11.912 |  | 1.861\*\* |
| Child's Grade in School |  |  |  |  |  |  |  |  |
| Baseline |  | 1,602 | 2,732 |  | 4.429 | 4.259 |  | 2.383\*\*\* |
| Midline |  | 1,317 | 2,224 |  | 5.109 | 4.909 |  | 2.554\*\* |
| Child is in Secondary School |  |  |  |  |  |  |  |  |
| Baseline |  | 1,602 | 2,732 |  | 0.095 | 0.081 |  | 1.585\*\* |
| Midline |  | 1,602 | 2,732 |  | 0.328 | 0.304 |  | 1.682\*\* |
| Child is Enrolled in School |  |  |  |  |  |  |  |  |
| Baseline |  | 712 | 1,161 |  | 0.999 | 0.997 |  | 0.831 |
| Midline |  | 1,054 | 1,679 |  | 0.954 | 0.959 |  | -0.753 |
| Child is Frequently Ill |  |  |  |  |  |  |  |  |
| Baseline |  | 693 | 1,129 |  | 0.118 | 0.127 |  | -0.525\*\* |
| Midline |  | 1,053 | 1,680 |  | 0.102 | 0.107 |  | -0.41 |
| Child Received Scholarship |  |  |  |  |  |  |  |  |
| Baseline |  | 688 | 1,105 |  | 0.047 | 0.072 |  | -2.204 |
| Midline |  | 1,047 | 1,665 |  | 0.162 | 0.187 |  | -1.659 |
| HH Wealth[[17]](#footnote-17) |  |  |  |  |  |  |  |  |
| Baseline |  | . | . |  | . | . |  | . |
| Midline |  | 701 | 1,147 |  | 0.003 | (0.010) |  | 0.269 |
| Mother Lives in HH |  |  |  |  |  |  |  |  |
| Baseline |  | 712 | 1,163 |  | 0.664 | 0.715 |  | -2.335 |
| Midline |  | 1,054 | 1,679 |  | 0.632 | 0.649 |  | -0.919 |
| Father Lives in HH |  |  |  |  |  |  |  |  |
| Baseline |  | 710 | 1,140 |  | 0.523 | 0.531 |  | -0.342\*\*\* |
| Midline |  | 1,052 | 1,675 |  | 0.493 | 0.493 |  | 0.041 |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | |

**Stata Code for Estimating Statistical Significance**

The following code was used in the statistical software package Stata to conduct the midline evaluation analysis.

\* Read-in Assessment Data & Merge with Treatment Identification from R Script ('Extracting Main Variables (final version).R')

use "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Data\Assessment Data (4Mar2016).dta", clear

sort Dist New\_SP

merge m:1 Dist New\_SP using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Data\Treatment (4Mar2016).dta"

drop if \_merge == 1 /\* drop observations without a valid New\_SP \*/

set more off

rename (index)(pid)

label var pid "Unique Girl ID"

rename(B\_F2\_2)(reconnect)

label var reconnect "Girl Reconnected"

recode reconnect (999=3)

replace reconnect = 3 if reconnect == . & Girl\_ID != .

replace reconnect = 4 if reconnect == .

label define reconnect 1 "reconnected" 2 "substitute" 3 "ssboost" 4 "lost", modify

\* Treatment Variables

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Generalized treatment

\* Schools that were originally classified as treated and had received at least two interventions

\* (VSL, MG, PW) for longer than 6 months are classified as treated (fully treated [newtreat == 3])

\* Schools that were originally classified as treated, but did not receive at least 2 interventions

\* for more than 6 months are dropped from analysis (partially treated [newtreat == 2])

\* Schools that were originally classifed as controlled remained classified as control (not treated [newtreat == 1])

gen newtreat = treat

recode newtreat (1=0) (2=.) (3=1)

label var newtreat "Treatment"

gen oldtreat = newtreat

recode oldtreat (.=1)

label var oldtreat "Intent of Treatment"

\* Individual treatments

tab vsltreat

label var vsltreat "VSL Treatment"

tab mgtreat

label var mgtreat "MG Treatment"

tab pwtreat

label var pwtreat "PW Treatment"

foreach var of varlist vsltreat mgtreat pwtreat {

recode `var' (1=0) (2=.) (3=1)

}

sum newtreat oldtreat vsltreat mgtreat pwtreat

\* Outcome Variables

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Renaming midline outcome variables to have the same naming system (Midline Analysis: 1)

rename (ml\_egra1\_score ml\_egra2\_score ml\_egra3\_score ml\_egra4\_score ml\_egra5\_score ///

ml\_egma1\_score ml\_egma2\_score ml\_egma3\_score ml\_egma4\_score ml\_egma5\_score ml\_egma6\_score ml\_egma\_avg\_score) ///

(egraletter1 egrainvent1 egraorf11 egraorf21 egracomp11 ///

egmanumb1 egmaquant1 egmamiss1 egmaadd1 egmasub1 egmaprob1 egmatotal1)

\* Renaming corrected baseline outcome variables to have the same naming system (Baseline Analysis: 0)

rename (bl\_egra1\_score bl\_egra2\_score bl\_egra3\_score bl\_egra4\_score bl\_egra5\_score ///

bl\_egma1\_score bl\_egma2\_score bl\_egma3\_score bl\_egma4\_score bl\_egma5\_score bl\_egma6\_score bl\_egma\_avg\_score) ///

(egraletter0 egrainvent0 egraorf10 egraorf20 egracomp10 ///

egmanumb0 egmaquant0 egmamiss0 egmaadd0 egmasub0 egmaprob0 egmatotal0)

\* Label midline outcome variables

label var egraletter1 "EGRA Letter Recognition Score ML"

label var egrainvent1 "EGRA Word Invention Score ML"

label var egraorf11 "EGRA Oral Fluency 1 Score ML"

label var egraorf21 "EGRA Oral Fluency 2 Score ML"

label var egracomp11 "EGRA Comprehension 1 Score ML"

label var egmanumb1 "EGMA Numbers Score ML"

label var egmaquant1 "EGMA Quantitative Score ML"

label var egmamiss1 "EGMA Missing Score ML"

label var egmaadd1 "EGMA Addition Score ML"

label var egmasub1 "EGMA Subtraction Score ML"

label var egmaprob1 "EGMA Problem Solving Score ML"

label var egmatotal1 "EGMA Total Score ML"

\* Label baseline outcome variables

label var egraletter0 "EGRA Letter Recognition Score BL"

label var egrainvent0 "EGRA Word Invention Score BL"

label var egraorf20 "EGRA Oral Fluency 2 Score BL"

label var egraorf10 "EGRA Oral Fluency 1 Score BL"

label var egracomp10 "EGRA Comprehension 1 Score BL"

label var egmanumb0 "EGMA Numbers Score BL"

label var egmaquant0 "EGMA Quantitative Score BL"

label var egmamiss0 "EGMA Missing Score BL"

label var egmaadd0 "EGMA Addition Score BL"

label var egmasub0 "EGMA Subtraction Score BL"

label var egmaprob0 "EGMA Problem Solving Score BL"

label var egmatotal0 "EGMA Total Score BL"

\* Equating strategy (based on lack of equivalence between baseline and midline stories)

replace egraorf21 = 1.893 + 0.779\*egraorf21

sum egraletter1 egrainvent1 egraorf11 egraorf21 egracomp11 egmanumb1 egmaquant1 egmamiss1 egmaadd1 egmasub1 egmaprob1 egmatotal1 ///

egraletter0 egrainvent0 egraorf10 egraorf20 egracomp10 egmanumb0 egmaquant0 egmamiss0 egmaadd0 egmasub0 egmaprob0 egmatotal0

\*Subset to longitudinal study based on girls who have learning outcomes in baseline

gen scores1=1

replace scores1=0 if egraletter1==. & egrainvent1==. & egraorf11==. & egraorf21==. & egracomp11==. & ///

egmanumb1==. & egmaquant1==. & egmamiss1==. & egmaadd1==. & egmasub1==. & egmaprob1==.

gen scores0=1

replace scores0=0 if egraletter0==. & egrainvent0==. & egraorf10==. & egraorf20==. & egracomp10==. & ///

egmanumb0==. & egmaquant0==. & egmamiss0==. & egmaadd0==. & egmasub0==. & egmaprob0==.

sum scores0 scores1

\* Clean reconnect variable based on assessment scores

gen ml\_class = .

replace ml\_class = 1 if scores1 == 1 & scores0 == 1 /\* reconnection \*/

replace ml\_class = 2 if scores1 == 1 & scores0 == 0 /\* added \*/

replace ml\_class = 3 if scores1 == 0 & scores0 == 1 /\* lost \*/

label var ml\_class "Girl's ML Survey Classification"

label define ml\_class 1 "reconnection" 2 "addition" 3 "lost", modify

gen ml\_class2 = ml\_class

replace ml\_class2 = 2.1 if ml\_class == 2 & reconnect == 2 /\* replacement \*/

replace ml\_class2 = 2.2 if ml\_class == 2 & reconnect == 3 /\* sample size boost \*/

replace ml\_class2 = 2.3 if ml\_class == 2 & reconnect != 2 & reconnect != 3 /\* addition unknown class \*/

label var ml\_class "Girl's ML Survey Classification with Sub-Categories"

keep if ml\_class2 == 1/\*drop if girl doesn't have any learning scores in baseline & midline\*/

sum egraletter1 egrainvent1 egraorf11 egraorf21 egracomp11 ///

egmanumb1 egmaquant1 egmamiss1 egmaadd1 egmasub1 egmaprob1 egmatotal1 ///

egraletter0 egrainvent0 egraorf10 egraorf20 egracomp10 ///

egmanumb0 egmaquant0 egmamiss0 egmaadd0 egmasub0 egmaprob0 egmatotal0 pid

\* Calculate score differences between baseline and midline

gen egraletter = egraletter1 - egraletter0

label var egraletter "EGRA Letter Recognition Score Change"

gen egrainvent = egrainvent1 - egrainvent0

label var egrainvent "EGRA Word Invention Score Change"

gen egraorf1 = egraorf11 - egraorf10

label var egraorf1 "EGRA Oral Fluency 1 Score Change"

gen egraorf2 = egraorf21 - egraorf20

label var egraorf2 "EGRA Oral Fluency 2 Score Change"

gen egracomp1 = egracomp11 - egracomp10

label var egracomp1 "EGRA Comprehension 1 Score Change"

gen egmanumb = egmanumb1 - egmanumb0

label var egmanumb "EGMA Numbers Score Change"

gen egmaquant = egmaquant1 - egmaquant0

label var egmaquant "EGMA Quantitative Score Change"

gen egmamiss = egmamiss1 - egmamiss0

label var egmamiss "EGMA Missing Score Change"

gen egmaadd = egmaadd1 - egmaadd0

label var egmaadd "EGMA Addition Score Change"

gen egmasub = egmasub1 - egmasub0

label var egmasub "EGMA Subtraction Score Change"

gen egmaprob = egmaprob1 - egmaprob0

label var egmaprob "EGMA Problem Solving Score Change"

gen egmatotal = egmatotal1 - egmatotal0

label var egmatotal "EGMA Composite Score Change"

sum egraorf1 egraorf2 egraletter egrainvent egracomp1 egmanumb egmaquant egmamiss egmaadd egmasub egmaprob egmatotal

\* Control Variables

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

tab age

gen age1 = age

label var age1 "Child's Age ML"

tab age\_cut\_ml

rename(age\_cut\_ml)(age\_cut1)

label var age\_cut1 "Child's Age Bracket ML"

tab CHILD\_AGE

gen age0 = CHILD\_AGE

recode age0 (1=.) /\*Don't believe it's reasonable to have a 1 old in sample\*/

label var age0 "Child's Age BL"

tab age\_cut\_bl

rename(age\_cut\_bl)(age\_cut0)

label var age\_cut0 "Child's Age Bracket BL"

tab grade\_ml

gen grade1 = grade\_ml

recode grade1 (12=.) /\*there is only one child with grade 12 & they were in grade 4 in the baseline\*/

label var grade1 "Child's Grade in School ML"

tab grade\_bl

gen grade0 = grade\_bl

label var grade0 "Child's Grade in School BL"

gen gradediff = grade1 - grade0

label var gradediff "Change in Child's Grade"

replace grade1=. if grade1 != 0 & (gradediff > -10 & gradediff <= -4)/\*clean if the child has increased 4 or more grades since baseline -- this is likely a generous cutoff)\*/

replace grade1=. if grade1 != 0 & (gradediff >= 4 & gradediff <= 10)/\*clean if the child has reverted back 4 or more grades since baseline -- this is likely a generous cutoff)\*/

drop if grade1 == . /\*missing grades shouldn't be included in pbr since they aren't included in regression \*/

foreach num of numlist 0/10{

gen grade\_ml`num'=0

replace grade\_ml`num'=1 if grade1==`num'

}

label var grade\_ml0 "ML Grade 0"

label var grade\_ml1 "ML Grade 1"

label var grade\_ml2 "ML Grade 2"

label var grade\_ml3 "ML Grade 3"

label var grade\_ml4 "ML Grade 4"

label var grade\_ml5 "ML Grade 5"

label var grade\_ml6 "ML Grade 6"

label var grade\_ml7 "ML Grade 7"

label var grade\_ml8 "ML Grade 8"

label var grade\_ml9 "ML Grade 9"

label var grade\_ml10 "ML Grade 10"

foreach num of numlist 0/10{

gen grade\_bl`num'=0

replace grade\_bl`num'=1 if grade0==`num'

}

label var grade\_bl0 "BL Grade 0"

label var grade\_bl1 "BL Grade 1"

label var grade\_bl2 "BL Grade 2"

label var grade\_bl3 "BL Grade 3"

label var grade\_bl4 "BL Grade 4"

label var grade\_bl5 "BL Grade 5"

label var grade\_bl6 "BL Grade 6"

label var grade\_bl7 "BL Grade 7"

label var grade\_bl8 "BL Grade 8"

label var grade\_bl9 "BL Grade 9"

label var grade\_bl10 "BL Grade 10"

\* Checking control variables

sum grade1 grade\_ml0-grade\_ml10 grade0 grade\_bl0-grade\_bl10

\* Control Variables Inclusion Checks

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* 1. The additional control variables must be significantly correlated with the treatment status, either positively or negatively.

\* Difference in means -- newtreat

eststo: quietly estpost ttest grade1 ///

if grade0 >= 1 & grade0 <=9, by(newtreat)

esttab ., cells("t(fmt(3)) p(fmt(3))") wide noobs nonumber label

\*illness, attendance, grade repetition, scholarship, wealth, school books are not significantly different at the 10 percent level or less --> remove from regressions on newtreat

\* Difference in means -- oldtreat

eststo: quietly estpost ttest grade1 ///

if grade0 >= 1 & grade0 <=9, by(oldtreat)

esttab ., cells("t(fmt(3)) p(fmt(3))") wide noobs nonumber label

\*illness, attendance, grade repetition, scholarship, wealth, school books and dadhome are not significantly different at the 10 percent level or less --> remove from regressions on oldtreat

\* Difference in means -- vsltreat

eststo: quietly estpost ttest grade1 ///

if grade0 >= 1 & grade0 <=9, by(vsltreat)

esttab ., cells("t(fmt(3)) p(fmt(3))") wide noobs nonumber label

\*illness, attendance, grade repetition, scholarship, wealth, school books are not significantly different at the 10 percent level or less --> remove from regressions on vsltreat

\* Difference in means -- mgtreat

eststo: quietly estpost ttest grade1 ///

if grade0 >= 1 & grade0 <=9, by(mgtreat)

esttab ., cells("t(fmt(3)) p(fmt(3))") wide noobs nonumber label

\*illness, attendance, grade repetition, scholarship, wealth, school books are not significantly different at the 10 percent level or less --> remove from regressions on mgtreat

\* Difference in means -- pwtreat

eststo: quietly estpost ttest grade1 ///

if grade0 >= 1 & grade0 <=9, by(pwtreat)

esttab ., cells("t(fmt(3)) p(fmt(3))") wide noobs nonumber label

\*illness, grade repetition, scholarship, wealth are not significantly different at the 10 percent level or less --> remove from regressions on mpwtreat

\* 2. The additional variable must be an independent variable that is not (or could be confused with) the result of the interventions.

\* 3. When added to the regression, the coefficient estimate of the additional variable must be statistically different from zero.

\* 4. The additional variables must be jointly significant (calculated through the use of the F-Statistic calculated in most statistical software packages)

\* 5. The additional control must closely measure a factor that affects learning trajectories and not simply learning levels.

\* As such, arguments to add additional variables need to be based on the logic of the request, not simply empirical arguments.

\* 6. The additional variable must have no substantial gaps in the dataset – i.e. must not alter the composition of the sample.

sum grade1

\*grade (0% missing)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\* ANALYSIS \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Single-Variate Regression on EGRA Outcomes

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Looped EGRA Difference-in-Difference estimations (New Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_newtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' newtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_newtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' newtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

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\* Looped EGRA Difference-in-Difference estimations (Old Treatment)

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replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_oldtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' oldtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGRA Difference-in-Difference estimations (VSL Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_vsltreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' vsltreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_vsltreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' vsltreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGRA Difference-in-Difference estimations (MG Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_mgtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' mgtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_mgtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' mgtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGRA Difference-in-Difference estimations (PW Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_pwtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' pwtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_single\_pwtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' pwtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Single-Variate Regression on EGMA Outcomes

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Looped EGMA Difference-in-Difference estimation (New Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_newtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' newtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_newtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' newtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation (Old Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_oldtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' oldtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_oldtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' oldtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation (VSL Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_vsltreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' vsltreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_vsltreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' vsltreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation (MG Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_mgtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' mgtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_mgtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' mgtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation PW Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_pwtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' pwtreat if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_single\_pwtreat.xls", ///

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}

\* Multi-Variate Regression on EGRA Outcomes

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Looped EGRA Difference-in-Difference estimations (New Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_newtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' newtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_newtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' newtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGRA Difference-in-Difference estimations (Old Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_oldtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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}

\* Looped EGRA Difference-in-Difference estimations (VSL Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_vsltreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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}

foreach var of varlist egrainvent egraorf1 egraorf2 egracomp1 {

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}

\* Looped EGRA Difference-in-Difference estimations (MG Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_mgtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' mgtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGRA Difference-in-Difference estimations (PW Treatment)

foreach var of varlist egraletter {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_pwtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGRA Difference-in-Difference Estimations") excel: regress `var' pwtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

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outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egra\_multi\_pwtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' pwtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Multi-Variate Regression on EGMA Outcomes

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Looped EGMA Difference-in-Difference estimation (New Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_newtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' newtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_newtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' newtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation (Old Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_oldtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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}

\* Looped EGMA Difference-in-Difference estimation (VSL Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_vsltreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

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foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_vsltreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' vsltreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation (MG Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_mgtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' mgtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_mgtreat.xls", ///

append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' mgtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* Looped EGMA Difference-in-Difference estimation PW Treatment)

foreach var of varlist egmanumb {

outreg2 using "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\egma\_multi\_pwtreat.xls", ///

replace label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") ///

title("EGMA Difference-in-Difference Estimations") excel: regress `var' pwtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

foreach var of varlist egmaquant egmamiss egmaadd egmasub egmaprob egmatotal {

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append label se bdec(3) nocons coefastr rdec(3) bfmt(fc) sdec(3) sfmt(fc) ctitle("`var'") excel: regress `var' pwtreat grade\_ml0-grade\_ml10 if grade0 >= 1 & grade0 <=9, robust clus(New\_SP\_Code)

}

\* keep relevant variables

keep pid Girl\_ID New\_SP\_Code New\_SP Dist reconnect ml\_class ml\_class2 /// /\* ID Variables \*/

bl\_egra1\_correct bl\_egra1\_tremain bl\_egra2\_correct bl\_egra2\_tremain bl\_egra3\_correct bl\_egra3\_tremain bl\_egra4\_correct bl\_egra4\_tremain bl\_egra5\_correct /// /\*Baseline Sub-Learning Outcomes EGRA \*/

bl\_egma1\_correct bl\_egma1\_tremain bl\_egma2\_correct bl\_egma3\_correct bl\_egma4\_correct bl\_egma4\_tremain bl\_egma5\_correct bl\_egma5\_tremain bl\_egma6\_correct /// /\*Baseline Sub-Learning Outcomes EGMA \*/

egraletter0 egrainvent0 egraorf10 egraorf20 egracomp10 egmanumb0 egmaquant0 egmamiss0 egmaadd0 egmasub0 egmaprob0 egmatotal0 /// /\* Baseline Learning Outcomes \*/

ml\_egra1\_correct ml\_egra1\_tremain ml\_egra2\_correct ml\_egra2\_tremain ml\_egra3\_correct ml\_egra3\_tremain ml\_egra4\_correct ml\_egra4\_tremain ml\_egra5\_correct /// /\*Midline Sub-Learning Outcomes EGRA \*/

ml\_egma1\_correct ml\_egma1\_tremain ml\_egma2\_correct ml\_egma3\_correct ml\_egma4\_correct ml\_egma4\_tremain ml\_egma5\_correct ml\_egma5\_tremain ml\_egma6\_correct /// /\*Midline Sub-Learning Outcomes EGMA \*/

egraletter1 egrainvent1 egraorf11 egraorf21 egracomp11 egmanumb1 egmaquant1 egmamiss1 egmaadd1 egmasub1 egmaprob1 egmatotal1 /// /\* Midline Learning Outcomes \*/

egraletter egrainvent egraorf1 egraorf2 egracomp1 egmanumb egmaquant egmamiss egmaadd egmasub egmaprob egmatotal /// /\* Change in Learning Outcomes \*/

newtreat oldtreat vsltreat mgtreat pwtreat /// /\* Treatment Variables \*/

age1 age\_cut1 grade1 grade\_ml0-grade\_ml10 age0 age\_cut0 grade0 grade\_bl0-grade\_bl10/\* Control Variables \*/

\* variable labels if not already done so

label var Dist "District"

label var New\_SP "School"

label var New\_SP\_Code "School Code"

label var bl\_egra1\_correct "Number Correct - EGRA Letter Recognition BL"

label var bl\_egra1\_tremain "Time Remaining - EGRA Letter Recognition BL"

label var bl\_egra2\_correct "Number Correct - EGRA Word Invention BL"

label var bl\_egra2\_tremain "Time Remaining - EGRA Word Invention BL"

label var bl\_egra3\_correct "Number Correct - EGRA Oral Fluency 1 BL"

label var bl\_egra3\_tremain "Time Remaining - EGRA Oral Fluency 1 BL"

label var bl\_egra4\_correct "Number Correct - EGRA Oral Fluency 2 BL"

label var bl\_egra4\_tremain "Time Remaining - EGRA Oral Fluency 2 BL"

label var bl\_egra5\_correct "Number Correct - EGRA Comprehension BL"

label var bl\_egma1\_correct "Number Correct - EGMA Numbers BL"

label var bl\_egma1\_tremain "Time Remaining - EGMA Numbers BL"

label var bl\_egma2\_correct "Number Correct - EGMA Quantitative BL"

label var bl\_egma3\_correct "Number Correct - EGMA Missing BL"

label var bl\_egma4\_correct "Number Correct - EGMA Addition BL"

label var bl\_egma4\_tremain "Time Remaining - EGMA Addition BL"

label var bl\_egma5\_correct "Number Correct - EGMA Subtraction BL"

label var bl\_egma5\_tremain "Time Remaining - EGMA Subtraction BL"

label var bl\_egma6\_correct "Number Correct - EGMA Problem Solving BL"

label var ml\_egra1\_correct "Number Correct - EGRA Letter Recognition ML"

label var ml\_egra1\_tremain "Time Remaining - EGRA Letter Recognition ML"

label var ml\_egra2\_correct "Number Correct - EGRA Word Invention ML"

label var ml\_egra2\_tremain "Time Remaining - EGRA Word Invention ML"

label var ml\_egra3\_correct "Number Correct - EGRA Oral Fluency 1 ML"

label var ml\_egra3\_tremain "Time Remaining - EGRA Oral Fluency 1 ML"

label var ml\_egra4\_correct "Number Correct - EGRA Oral Fluency 2 ML"

label var ml\_egra4\_tremain "Time Remaining - EGRA Oral Fluency 2 ML"

label var ml\_egra5\_correct "Number Correct - EGRA Comprehension ML"

label var ml\_egma1\_correct "Number Correct - EGMA Numbers ML"

label var ml\_egma1\_tremain "Time Remaining - EGMA Numbers ML"

label var ml\_egma2\_correct "Number Correct - EGMA Quantitative ML"

label var ml\_egma3\_correct "Number Correct - EGMA Missing ML"

label var ml\_egma4\_correct "Number Correct - EGMA Addition ML"

label var ml\_egma4\_tremain "Time Remaining - EGMA Addition ML"

label var ml\_egma5\_correct "Number Correct - EGMA Subtraction ML"

label var ml\_egma5\_tremain "Time Remaining - EGMA Subtraction ML"

label var ml\_egma6\_correct "Number Correct - EGMA Problem Solving ML"

save "C:\Users\bitt0063\Google Drive\Consulting Projects\Zimbabwe IGATE\Midline Analysis\Outputs\Cohort Analysis\cohort\_analysis\_4Mar2016.dta", replace

Annex 5: M&E Framework

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Tool Name** | **Period of Data Collection** | **Month data collected began** | **Type of data collected** |
| BEEP | BEEP Attendance Monitoring | Monthly during school terms | July 2014 | BEEP beneficiary termly attendance |
| Channels of Hope |  |  |  |  |
| CSGE | CSGE Abuse Mechanisms Functionality form | Monthly | May-2015 | Assess functionality of abuse reporting mechanisms |
| Happy Readers |  |  |  |  |
| Male Champions |  |  |  |  |
| MG | MG Monthly Monitoring tool | Monthly | March-2014 | Monitors Group functionality |
| Pre-test/ | Administered before training | March-2014 | Assess gender knowledge and awareness |
| Post test | Administered after the training and at least 3 months after training | March-2014 | Track changes in gender knowledge and awareness |
| PW | Girls Club Monthly Monitoring form | Monthly | March 2014 | Monitors Group functionality |
| SDC | SDC monitoring Form | Quarterly | September 2014 | Assess SDC initiatives to support girls education |
| VSL | VSL Household Monitoring Tool | Yearly | Aug-2014 | Assesses overall impact of VSL households on multiple indicators |
| School-level data | Spot Check Attendance Form | Termly | Feb-2015 | Tracks the attendance of students in IGATE school |
| Trainings | Training Registers Forms | During Training |  | Training participants details |

Annex 6: Summary of Quantitative Data

Table A 11: Summary of quantitative data

|  |  | **Parameters – Results** | **Source** | **Notes** |
| --- | --- | --- | --- | --- |
| **Sample size requirements** | **1** | Significance level (alpha) | *M&E Framework / Outcomes SS* |  |
| **2** | Power (1 - beta) | *M&E Framework / Outcomes SS* |  |
| **3** | Minimum detectable effect | *M&E Framework / Outcomes SS* |  |
| **4** | Clustering applied | *M&E Framework* | *Yes/No* |
| **5** | Assumed Intra-Cluster Correlation | *M&E Framework* |  |
| **6** | Allocation ratio (between treatment and control group) | *M&E Framework* | *ratio of sample size in treatment group on sample size in control group* |
| **7** | Minimum required sample size | *M&E Framework* |  |
| **8** | Attrition buffer | *M&E Framework* | *percentage increase in sample size to account for attrition (expected)* |
| **9** | Sample size (total) | *M&E Framework / Outcomes SS* |  |
| **10** | Sample size in treatment group | *M&E Framework / Outcomes SS* |  |
| **11** | Sample size in control group | *M&E Framework / Outcomes SS* |  |
| **12** | Sampling clusters | *M&E Framework* | *e.g. school, ward, district* |
| **13** | Number of sampling clusters | *M&E Framework / Outcomes SS* |  |
| **14** | Number of sampling clusters in treatment group | *M&E Framework / Outcomes SS* |  |
| **15** | Number of sampling clusters in control group | *M&E Framework / Outcomes SS* |  |
| **16** | Number of girls per sampling cluster | *M&E Framework / Outcomes SS* |  |
| **Sample size ex-post** | **17** | Sample size ex-post (total) | *Dataset* | *only cohort girls tracked at midline and/or endline* |
| **18** | Sample size ex-post in treatment group | *Dataset* |  |
| **19** | Sample size ex-post in control group | *Dataset* |  |
| **20** | Number of sampling clusters ex-post | *Dataset / Outcomes SS* |  |
| **21** | Number of girls who are substitution girls | *Dataset* |  |
| **Target** | **22** | Standard deviation of all scores at baseline | *Dataset* |  |
| **23** | Standard deviation of score changes for intervention group | *Dataset / Outcomes SS* | *changes between baseline and midline or midline and endline* |
| **24** | Standard deviation of score changes for control group | *Dataset / Outcomes SS* | *changes between baseline and midline or midline and endline* |
| **25** | Target | *Outcomes spreadsheet* | *formula embedded in Outcomes SS* |
| **Results** | **26** | Achievement (beta) | *Outcomes spreadsheet* | *DiD estimator* |
| **27** | Achievement in SD terms | *Dataset* |  |
| **28** | Result | *Outcomes spreadsheet* | *computed as Achievement / Target* |
| **29** | p-value of simple OLS | *statistical software* |  |
| **30** | p-value of simple OLS with clustered errors | *statistical software* |  |
| **31** | p-value of OLS with additional controls and clustered errors | *statistical software* |  |

Annex 7: Independent Evaluator Declaration

Name of Project: Zimbabwe IGATE Midline Evaluation

**Name of Independent Evaluator:** Miske Witt & Associates Inc.

**Contact Information for Independent Evaluator:** smiske@miskewitt.com; (651) 481-0990

**Names of all members of the evaluation team:** Shirley Miske, Kristi Fair, Kara Janigan, Karen Monkman, Raya Hegeman-Davis, Nick Shawa, Isabelle Duston, Mary Faith Mount-Cors, Paul Glewwe, Brooke Krause, Aine McCarthy, Ali Joglekar, Kathy Bakkenist, Sarah Koehler, Anna Pease

**Shirley Miske** hereby affirms that **Miske Witt & Associates Inc.** has no previous affiliation or relationship with the **Zimbabwe IGATE Midline Evaluation**, Girls’ Education Challenge Fund, PwC, Coffey, DFID or the stakeholders interviewed as a part of this evaluation.

**Shirley Miske** certifies that the independent evaluation has been conducted in line with the Terms of Reference and other requirements received.

Specifically:

* All of the quantitative data was collected independently (Initials: **SM**)
* All data analysis was conducted independently and provides a fair and consistent representation of progress (Initials: **SM**)
* Data quality assurance and verification mechanisms agreed in the terms of reference with the project have been soundly followed (Initials: **SM**)
* The recipient has not fundamentally altered or misrepresented the nature of the analysis originally provided by **World Vision-UK** (Initials: **SM**)
* All Evaluation Manager (EM) guidance on data cleaning has been followed (Initials: **SM**)
* All data has been uploaded to the EM’s SharePoint system in the instructed shape and format (Initials: **SM**)
* All child protection protocols and guidance have been followed (Initials: **SM**)
* Data has been anonymised, treated confidentially and stored safely, in line with the GEC data protection and ethics protocols (Initials: **SM**)

Shirley J. Miske

(Name)

Miske Witt & Associates Inc.

(Company)

April 16, 2016

(Date)

6 Appendix

Appendix 1

Table B 1: DiD estimates on literacy outcomes – Full-treatment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 |
|  |  |  |  |  |  |
| Treatment (FT) | -0.221 | -0.313 | 0.923 | 3.973 | -0.054 |
|  | (1.003) | (0.922) | (2.367) | (2.641) | (0.076) |
| Child's Grade in School -- 0 | - | -1.558 | - | - | -3.982\*\*\* |
|  |  | (8.533) |  |  | (0.025) |
| Child's Grade in School -- 1 | 13.354 | -6.282\*\* | -72.201\*\*\* | - | -3.717\*\*\* |
|  | (8.923) | (3.055) | (3.533) |  | (0.099) |
| Child's Grade in School -- 2 | 12.623 | -1.113 | -54.184\*\*\* | - | -3.513\*\*\* |
|  | (8.744) | (2.819) | (2.969) |  | (0.071) |
| Child's Grade in School -- 3 | 14.083 | -1.826 | -46.105\*\*\* | - | -2.990\*\*\* |
|  | (8.809) | (2.914) | (3.123) |  | (0.112) |
| Child's Grade in School -- 4 | 15.965\* | -2.715 | -47.990\*\*\* | - | -3.032\*\*\* |
|  | (8.889) | (2.782) | (2.554) |  | (0.105) |
| Child's Grade in School -- 5 | 17.805\*\* | -2.854 | -46.667\*\*\* | -4.828 | -2.788\*\*\* |
|  | (8.858) | (2.690) | (2.306) | (50.733) | (0.100) |
| Child's Grade in School -- 6 | 17.762\* | -3.381 | -33.882\*\*\* | 15.576 | -2.662\*\*\* |
|  | (8.937) | (2.786) | (2.999) | (48.154) | (0.079) |
| Child's Grade in School -- 7 | 17.492\* | -3.165 | - | 10.920 | -3.113\*\*\* |
|  | (8.831) | (3.066) |  | (47.720) | (0.173) |
| Child's Grade in School -- 8 | 21.914\*\* | -0.569 | -7.710 | 7.592 | -3.274\*\*\* |
|  | (9.146) | (2.974) | (35.677) | (47.867) | (0.121) |
| Child's Grade in School -- 9 | 25.818\*\*\* | - | - | 5.139 | -3.523\*\*\* |
|  | (9.602) |  |  | (47.581) | (0.297) |
| Child's Grade in School -- 10 | 9.260 | - | - | 44.055 | - |
|  | (8.875) |  |  | (47.636) |  |
|  |  |  |  |  |  |
| Observations | 1,610 | 1,602 | 1,197 | 363 | 1,439 |
| R-squared | 0.036 | 0.008 | 0.093 | 0.046 | 0.056 |
| Robust standard errors in parentheses | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | |
|  | | | | | |
| Note: The interpretation of the grade dummies are with respect to Grade 0 for egraletter, Grade 9 for egrainvent, Grade 7 for egraorf1, Grade 4 for egraorf2 and Grade 10 for egracomp1. | | | | | |

Table B 2: DiD estimates on numeracy outcomes – Full-treatment

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| VARIABLES | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |
| Treatment (FT) | 0.358 | 0.076 | 0.118 | 0.507\* | 0.314 | -0.867 | 1.527 |
|  | (0.235) | (0.152) | (0.120) | (0.303) | (0.299) | (0.594) | (1.054) |
| Child's Grade in School -- 0 | - | - | 2.627\*\* | - | - | - | 0.824 |
|  |  |  | (1.200) |  |  |  | (2.486) |
| Child's Grade in School -- 1 | 7.219\*\*\* | 2.545\*\*\* | 4.587\*\*\* | -1.132 | -0.616 | - | 14.881\*\*\* |
|  | (0.991) | (0.626) | (0.180) | (1.834) | (1.779) |  | (2.118) |
| Child's Grade in School -- 2 | 8.271\*\*\* | 3.244\*\*\* | 4.500\*\*\* | 0.336 | 0.865 | - | 20.464\*\*\* |
|  | (0.581) | (0.560) | (0.131) | (1.719) | (1.847) |  | (1.534) |
| Child's Grade in School -- 3 | 3.997\*\*\* | 1.678\*\*\* | 3.733\*\*\* | 0.423 | -0.027 | - | 10.705\*\*\* |
|  | (0.548) | (0.543) | (0.146) | (1.751) | (1.821) |  | (1.466) |
| Child's Grade in School -- 4 | 2.124\*\*\* | 0.658 | 2.691\*\*\* | -1.313 | -0.482 | - | 2.534\*\* |
|  | (0.494) | (0.576) | (0.172) | (1.718) | (1.906) |  | (1.184) |
| Child's Grade in School -- 5 | 0.984\* | 0.176 | 2.239\*\*\* | -0.398 | 0.303 | -2.233 | 1.313 |
|  | (0.516) | (0.562) | (0.131) | (1.685) | (1.782) | (1.445) | (1.043) |
| Child's Grade in School -- 6 | 0.442 | -0.235 | 2.311\*\*\* | -0.703 | 1.041 | 2.405\*\*\* | 0.459 |
|  | (0.436) | (0.567) | (0.133) | (1.567) | (1.898) | (0.622) | (0.886) |
| Child's Grade in School -- 7 | -0.433 | -1.014\* | 1.666\*\*\* | -3.806\*\* | -2.558 | -1.274\*\* | -10.051\*\*\* |
|  | (0.495) | (0.538) | (0.229) | (1.802) | (1.900) | (0.569) | (1.607) |
| Child's Grade in School -- 8 | -0.453 | -1.164\*\* | 1.194\*\*\* | -4.585\*\*\* | -3.060 | -1.743\*\*\* | -12.501\*\*\* |
|  | (0.559) | (0.574) | (0.143) | (1.698) | (1.900) | (0.482) | (1.502) |
| Child's Grade in School -- 9 | 0.337 | -1.008\* | 1.097\*\*\* | -3.959\*\* | -1.673 | -1.296\*\* | -9.549\*\*\* |
|  | (0.595) | (0.595) | (0.252) | (1.726) | (1.831) | (0.596) | (0.898) |
| Child's Grade in School -- 10 | -2.547\*\*\* | -1.308\*\* | - | 3.502\*\* | 6.105\*\*\* | - | - |
|  | (0.458) | (0.547) |  | (1.657) | (1.782) |  |  |
|  |  |  |  |  |  |  |  |
| Observations | 1,619 | 1,611 | 1,617 | 1,613 | 1,614 | 303 | 1,600 |
| R-squared | 0.310 | 0.252 | 0.241 | 0.084 | 0.061 | 0.184 | 0.269 |
| Robust standard errors in parentheses | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |
|  | | | | | | | |
| Note: The interpretation of the grade dummies are with respect to Grade 0 for egmanumb, egmaquant, egmaadd and egmasub. It is with respect to Grade 10 for egmamiss and egmatotal, and Grade 5 for egmaprob. | | | | | | | |

Table B 3: Comparisons of main learning assessment score differences by treatment status and grade

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | EGRA ORF1 | | |  | EGRA ORF1 | | |  | EGMA Total | | |
| Outcome |  | Obs | Mean | t-statistic |  | Obs | Mean | t-statistic |  | Obs | Mean | t-statistic |
| *Grade 1* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | 83 | 31.241 | 1.522 |  | - | - | - |  | 86 | 35.465 | -0.076 |
| Treatment |  | 146 | 24.655 |  |  | - | - | - |  | 150 | 35.660 |  |
| *Grade 2* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | 96 | 38.931 | 0.73 |  | - | - | - |  | 98 | 26.796 | 0.008 |
| Treatment |  | 172 | 36.096 |  |  | - | - | - |  | 177 | 26.780 |  |
| *Grade 3* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | 83 | 33.635 | -2.286\*\* |  | - | - | - |  | 82 | 17.915 | -0.719 |
| Treatment |  | 197 | 42.510 |  |  | - | - | - |  | 203 | 19.276 |  |
| *Grade 4* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | 122 | 36.911 | 0.355 |  | - | - | - |  | 122 | 11.320 | -1.32 |
| Treatment |  | 163 | 35.771 |  |  | - | - | - |  | 166 | 13.620 |  |
| *Grade 5* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | 115 | 42.488 | -0.286 |  | - | - | - |  | 118 | 10.619 | -1.497 |
| Treatment |  | 189 | 43.530 |  |  | - | - | - |  | 191 | 13.089 |  |
| *Grade 6* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | - | - | - |  | 55 | 31.164 | -0.737 |  | 60 | 7.000 | -1.971\* |
| Treatment |  | - | - | - |  | 103 | 33.895 |  |  | 111 | 10.973 |  |
| *Grade 7* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | - | - | - |  | 58 | 23.250 | -0.231 |  | 60 | 3.517 | 0.311 |
| Treatment |  | - | - | - |  | 88 | 24.316 |  |  | 94 | 2.787 |  |
| *Grade 8* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | - | - | - |  | 32 | 17.206 | -0.495 |  | 31 | (0.258) | -0.409 |
| Treatment |  | - | - | - |  | 25 | 20.720 |  |  | 26 | 0.808 |  |
| *Grade 9* |  |  |  |  |  |  |  |  |  |  |  |  |
| Control |  | - | - | - |  | 28 | 18.717 | -2.313\*\* |  | 29 | 2.759 | 2.431\*\* |
| Treatment |  | - | - | - |  | 24 | 31.081 |  |  | 24 | (3.417) |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | |  |  |  |  |  |

Table B 4: VSL Treatment EGRA & EGMA – Full DiD regression results

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Treatmenta | -0.140 | -0.351 | 0.746 | 3.968 | -0.064 | 0.338 | 0.087 | 0.115 | 0.502\* | 0.294 | -0.825 | 1.501 |
|  | (1.000) | (0.914) | (2.360) | (2.585) | (0.076) | (0.233) | (0.152) | (0.119) | (0.300) | (0.296) | (0.593) | (1.045) |
| Child's Grade in School -- 0 | -9.287 | -1.557 | - | - | -3.979\*\*\* | 2.554\*\*\* | - | - | -3.501\*\* | -6.098\*\*\* | - | 0.833 |
|  | (8.856) | (8.542) |  |  | (0.026) | (0.463) |  |  | (1.659) | (1.777) |  | (2.491) |
| Child's Grade in School -- 1 | 4.006\*\* | -6.337\*\* | -64.642\* | - | -3.710\*\*\* | 9.739\*\*\* | 2.543\*\*\* | 1.963 | -4.640\*\*\* | -6.724\*\*\* | - | 14.843\*\*\* |
|  | (1.522) | (3.047) | (36.013) |  | (0.098) | (0.853) | (0.624) | (1.210) | (0.441) | (0.536) |  | (2.097) |
| Child's Grade in School -- 2 | 3.291\*\*\* | -1.091 | -46.477 | - | -3.511\*\*\* | 10.828\*\*\* | 3.236\*\*\* | 1.868 | -3.124\*\*\* | -5.225\*\*\* | - | 20.500\*\*\* |
|  | (0.937) | (2.815) | (35.994) |  | (0.070) | (0.423) | (0.558) | (1.181) | (0.443) | (0.394) |  | (1.526) |
| Child's Grade in School -- 3 | 4.764\*\*\* | -1.917 | -38.893 | - | -2.992\*\*\* | 6.515\*\*\* | 1.710\*\*\* | 1.088 | -3.087\*\*\* | -6.130\*\*\* | - | 10.693\*\*\* |
|  | (1.177) | (2.909) | (35.844) |  | (0.110) | (0.338) | (0.541) | (1.206) | (0.408) | (0.412) |  | (1.453) |
| Child's Grade in School -- 4 | 6.880\*\*\* | -2.746 | -40.414 | - | -3.024\*\*\* | 4.730\*\*\* | 0.680 | 0.067 | -4.854\*\*\* | -6.584\*\*\* | - | 2.600\*\* |
|  | (1.154) | (2.779) | (35.746) |  | (0.105) | (0.306) | (0.574) | (1.186) | (0.335) | (0.401) |  | (1.179) |
| Child's Grade in School -- 5 | 8.532\*\*\* | -2.823 | -38.849 | -4.454 | -2.787\*\*\* | 3.510\*\*\* | 0.140 | -0.401 | -3.921\*\*\* | -5.779\*\*\* | -6.079\*\*\* | 1.187 |
|  | (1.149) | (2.687) | (36.380) | (35.239) | (0.099) | (0.223) | (0.561) | (1.214) | (0.316) | (0.329) | (1.505) | (1.046) |
| Child's Grade in School -- 6 | 8.502\*\*\* | -3.372 | -26.261 | 13.864 | -2.667\*\*\* | 2.979\*\*\* | -0.219 | -0.301 | -4.217\*\*\* | -5.126\*\*\* | -1.452\*\*\* | 0.432 |
|  | (1.203) | (2.778) | (35.856) | (32.140) | (0.078) | (0.193) | (0.565) | (1.201) | (0.324) | (0.290) | (0.465) | (0.879) |
| Child's Grade in School -- 7 | 8.314\*\*\* | -3.209 | 7.592 | 9.385 | -3.122\*\*\* | 2.126\*\*\* | -0.996\* | -0.948 | -7.238\*\*\* | -8.610\*\*\* | -5.042\*\*\* | -9.855\*\*\* |
|  | (1.937) | (3.050) | (35.634) | (31.745) | (0.171) | (0.285) | (0.535) | (1.122) | (0.579) | (0.514) | (0.542) | (1.609) |
| Child's Grade in School -- 8 | 12.612\*\*\* | -0.562 | - | 6.068 | -3.269\*\*\* | 2.105\*\*\* | -1.166\*\* | -1.432 | -8.084\*\*\* | -9.155\*\*\* | -5.592\*\*\* | -12.487\*\*\* |
|  | (2.327) | (2.972) |  | (31.886) | (0.120) | (0.351) | (0.573) | (1.200) | (0.348) | (0.686) | (0.514) | (1.498) |
| Child's Grade in School -- 9 | 16.532\*\*\* | - | - | 3.614 | -3.520\*\*\* | 2.891\*\*\* | -1.008\* | -1.530 | -7.460\*\*\* | -7.771\*\*\* | -5.135\*\*\* | -9.541\*\*\* |
|  | (3.656) |  |  | (31.681) | (0.297) | (0.399) | (0.594) | (1.221) | (0.465) | (0.433) | (0.703) | (0.895) |
| Child's Grade in School -- 10 | - | - | - | 42.528 | - | - | -1.304\*\* | -2.628\*\* | - | - | -3.825\*\*\* | - |
|  |  |  |  | (31.830) |  |  | (0.546) | (1.200) |  |  | (0.593) |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 1,632 | 1,624 | 1,208 | 372 | 1,460 | 1,641 | 1,633 | 1,639 | 1,635 | 1,636 | 308 | 1,622 |
| R-squared | 0.037 | 0.009 | 0.093 | 0.044 | 0.055 | 0.309 | 0.249 | 0.239 | 0.083 | 0.059 | 0.182 | 0.268 |
| Robust standard errors in parentheses | | | | | | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | |
|  | | | | | | | | | | | | |
| a A school is considered treated if a Village Savings and Loan program has been implemented in the school’s community for longer than six months. | | | | | | | | | | | | |
| Note: To interpret the dummy variables on grade, egraletter, egracomp1, egmanumb, egmaadd, egmasub and egmatotal are with respect to Grade 10, egrainvent is with respect to Grade 9, egraorf2 is with respect to Grade 4, egraorf1, egmaquant and egmamiss are with respect to Grade 0 and egraorf2 and egmaprob are with respect to Grade 4. | | | | | | | | | | | | |

Table B 5: MG Treatment for EGRA & EGMA – Full DiD regression results

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EGRA/EGMA Difference-in-Difference Estimations** | | | | | | | | | | | | |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Treatmenta | -0.035 | -0.311 | 0.654 | 4.822\*\* | -0.050 | 0.437\* | 0.112 | 0.126 | 0.494 | 0.259 | -0.828 | 1.632 |
|  | (1.042) | (0.930) | (2.420) | (2.385) | (0.080) | (0.243) | (0.157) | (0.126) | (0.307) | (0.311) | (0.620) | (1.109) |
| Child's Grade in School -- 0 | - | -1.558 | - | - | -3.983\*\*\* | 2.521\*\*\* | - | - | -3.498\*\* | - | - | 0.789 |
|  |  | (8.539) |  |  | (0.026) | (0.438) |  |  | (1.661) |  |  | (2.471) |
| Child's Grade in School -- 1 | 13.114 | -6.954\*\* | -64.666\* | - | -3.670\*\*\* | 9.700\*\*\* | 2.585\*\*\* | 2.049\* | -4.595\*\*\* | -0.511 | - | 15.166\*\*\* |
|  | (8.897) | (3.102) | (36.050) |  | (0.096) | (0.923) | (0.625) | (1.211) | (0.471) | (1.772) |  | (2.211) |
| Child's Grade in School -- 2 | 12.990 | -0.914 | -45.954 | - | -3.504\*\*\* | 10.903\*\*\* | 3.233\*\*\* | 1.906 | -3.090\*\*\* | 0.876 | - | 20.667\*\*\* |
|  | (8.705) | (2.830) | (36.012) |  | (0.073) | (0.436) | (0.557) | (1.182) | (0.450) | (1.842) |  | (1.564) |
| Child's Grade in School -- 3 | 14.108 | -2.323 | -39.774 | - | -2.982\*\*\* | 6.446\*\*\* | 1.668\*\*\* | 1.039 | -3.179\*\*\* | -0.115 | - | 10.319\*\*\* |
|  | (8.770) | (2.923) | (35.840) |  | (0.116) | (0.361) | (0.539) | (1.209) | (0.430) | (1.817) |  | (1.527) |
| Child's Grade in School -- 4 | 16.010\* | -2.349 | -40.161 | -44.055 | -3.010\*\*\* | 4.694\*\*\* | 0.701 | 0.117 | -4.877\*\*\* | -0.454 | - | 2.699\*\* |
|  | (8.863) | (2.782) | (35.749) | (47.712) | (0.110) | (0.312) | (0.574) | (1.187) | (0.344) | (1.905) |  | (1.205) |
| Child's Grade in School -- 5 | 18.114\*\* | -2.843 | -39.062 | -52.971\*\* | -2.810\*\*\* | 3.603\*\*\* | 0.217 | -0.347 | -3.923\*\*\* | 0.199 | - | 1.393 |
|  | (8.820) | (2.690) | (36.424) | (21.467) | (0.103) | (0.228) | (0.561) | (1.218) | (0.324) | (1.772) |  | (1.070) |
| Child's Grade in School -- 6 | 17.435\* | -3.123 | -26.246 | -27.786\*\*\* | -2.667\*\*\* | 2.923\*\*\* | -0.250 | -0.370 | -4.139\*\*\* | 1.070 | 4.659\*\* | 0.330 |
|  | (8.912) | (2.796) | (35.876) | (2.508) | (0.083) | (0.189) | (0.567) | (1.205) | (0.332) | (1.897) | (1.776) | (0.872) |
| Child's Grade in School -- 7 | 17.671\*\* | -3.691 | 7.531 | -34.085\*\*\* | -3.178\*\*\* | 2.172\*\*\* | -1.000\* | -1.028 | -7.365\*\*\* | -2.666 | 1.097 | -10.294\*\*\* |
|  | (8.794) | (3.048) | (35.648) | (2.748) | (0.173) | (0.304) | (0.535) | (1.124) | (0.604) | (1.892) | (1.785) | (1.647) |
| Child's Grade in School -- 8 | 21.966\*\* | -0.230 | - | -35.551\*\*\* | -3.208\*\*\* | 2.045\*\*\* | -1.134\* | -1.382 | -8.010\*\*\* | -2.992 | 0.407 | -12.252\*\*\* |
|  | (9.127) | (2.968) |  | (3.348) | (0.114) | (0.361) | (0.574) | (1.201) | (0.348) | (1.897) | (1.785) | (1.545) |
| Child's Grade in School -- 9 | 25.820\*\*\* | - | - | -39.192\*\*\* | -3.524\*\*\* | 2.858\*\*\* | -1.008\* | -1.530 | -7.457\*\*\* | -1.673 | 0.960 | -9.583\*\*\* |
|  | (9.565) |  |  | (2.485) | (0.297) | (0.409) | (0.592) | (1.222) | (0.466) | (1.822) | (1.826) | (0.911) |
| Child's Grade in School -- 10 | 9.322 | - | - | - | - | - | -1.296\*\* | -2.625\*\* | - | 6.086\*\*\* | 2.269 | - |
|  | (8.835) |  |  |  |  |  | (0.543) | (1.201) |  | (1.774) | (1.729) |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 1,498 | 1,490 | 1,115 | 338 | 1,335 | 1,508 | 1,500 | 1,505 | 1,501 | 1,502 | 284 | 1,490 |
| R-squared | 0.036 | 0.011 | 0.091 | 0.061 | 0.053 | 0.314 | 0.252 | 0.250 | 0.087 | 0.063 | 0.179 | 0.278 |
| Robust standard errors in parentheses | | | | | | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | |
|  | | | | | | | | | | | | |
| a A school is considered treated if a Mothers Group program has been implemented in the school’s community for longer than six months. | | | | | | | | | | | | |
| Note: To interpret the dummy variables on grade, egraletter, egmaquant, egmamiss and egmasub are with respect to Grade 0, egrainvent is with respect to Grade 9, egraorf1 is with respect to Grade 8, egraorf2, egmanumb, egmaadd and egmatotal are with respect to Grade 10 and egmaprob is with respect to Grade 5. | | | | | | | | | | | | |

Table B 6: PW Treatment EGRA & EGMA – Full DiD regression results

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| VARIABLES | egraletter | egrainvent | egraorf1 | egraorf2 | egracomp1 | egmanumb | egmaquant | egmamiss | egmaadd | egmasub | egmaprob | egmatotal |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Treatmenta | -0.116 | 0.008 | 0.393 | 3.725 | -0.071 | 0.405\* | 0.163 | 0.138 | 0.683\*\* | 0.427 | -1.463\*\* | 2.091\*\* |
|  | (1.021) | (0.953) | (2.383) | (3.157) | (0.080) | (0.237) | (0.152) | (0.120) | (0.293) | (0.294) | (0.673) | (1.032) |
| Child's Grade in School -- 0 | -5.530 | -5.172 | -74.679 | - | -3.715\*\*\* | 1.957\*\*\* | 0.702 | 2.717\*\*\* | -6.610\*\*\* | - | - | - |
|  | (5.767) | (6.234) | (53.554) |  | (0.226) | (0.432) | (1.220) | (0.925) | (2.175) |  |  |  |
| Child's Grade in School -- 1 | 4.288\*\*\* | -8.379\*\* | -60.436 | - | -3.677\*\*\* | 9.716\*\*\* | 3.862\*\*\* | 4.606\*\*\* | -4.597\*\*\* | -0.058 | - | 19.349\*\*\* |
|  | (1.592) | (3.539) | (53.549) |  | (0.104) | (0.902) | (0.219) | (0.182) | (0.468) | (1.214) |  | (5.685) |
| Child's Grade in School -- 2 | 3.613\*\*\* | -3.305 | -43.251 | - | -3.506\*\*\* | 10.977\*\*\* | 4.529\*\*\* | 4.533\*\*\* | -2.989\*\*\* | 1.664 | - | 25.529\*\*\* |
|  | (0.936) | (3.420) | (53.591) |  | (0.072) | (0.419) | (0.217) | (0.129) | (0.431) | (1.273) |  | (5.493) |
| Child's Grade in School -- 3 | 4.870\*\*\* | -4.463 | -34.524 | - | -2.988\*\*\* | 6.581\*\*\* | 2.952\*\*\* | 3.742\*\*\* | -3.049\*\*\* | 0.636 | - | 15.282\*\*\* |
|  | (1.151) | (3.406) | (53.475) |  | (0.111) | (0.341) | (0.201) | (0.144) | (0.425) | (1.283) |  | (5.180) |
| Child's Grade in School -- 4 | 6.634\*\*\* | -4.825 | -36.897 | -44.055 | -2.973\*\*\* | 4.576\*\*\* | 1.918\*\*\* | 2.638\*\*\* | -4.724\*\*\* | 0.430 | - | 7.138 |
|  | (1.144) | (3.383) | (53.410) | (47.694) | (0.103) | (0.294) | (0.187) | (0.174) | (0.329) | (1.359) |  | (5.141) |
| Child's Grade in School -- 5 | 8.617\*\*\* | -4.692 | -34.818 | -44.279\*\*\* | -2.794\*\*\* | 3.581\*\*\* | 1.470\*\*\* | 2.228\*\*\* | -4.069\*\*\* | 0.846 | -1.450 | 5.582 |
|  | (1.152) | (3.231) | (54.055) | (16.203) | (0.102) | (0.232) | (0.168) | (0.131) | (0.326) | (1.235) | (1.272) | (5.173) |
| Child's Grade in School -- 6 | 8.358\*\*\* | -5.101 | -23.623 | -27.543\*\*\* | -2.639\*\*\* | 2.997\*\*\* | 1.042\*\*\* | 2.310\*\*\* | -4.310\*\*\* | 1.799 | 2.411\*\*\* | 4.953 |
|  | (1.216) | (3.395) | (53.467) | (2.885) | (0.081) | (0.200) | (0.147) | (0.134) | (0.321) | (1.325) | (0.674) | (5.195) |
| Child's Grade in School -- 7 | 6.884\*\*\* | -5.663 | -10.392 | -34.151\*\*\* | -3.163\*\*\* | 1.944\*\*\* | 0.346 | 1.590\*\*\* | -7.327\*\*\* | -1.831 | -1.218\*\* | -5.664 |
|  | (1.892) | (3.705) | (55.562) | (2.931) | (0.177) | (0.222) | (0.270) | (0.221) | (0.576) | (1.366) | (0.583) | (5.301) |
| Child's Grade in School -- 8 | 13.035\*\*\* | -2.505 | - | -37.553\*\*\* | -3.273\*\*\* | 1.802\*\*\* | 0.373 | 1.241\*\*\* | -7.885\*\*\* | -1.801 | -2.037\*\*\* | -6.758 |
|  | (3.241) | (3.635) |  | (4.137) | (0.153) | (0.428) | (0.312) | (0.176) | (0.398) | (1.427) | (0.566) | (5.839) |
| Child's Grade in School -- 9 | 17.691\*\*\* | - | - | -38.193\*\*\* | -3.778\*\*\* | 3.064\*\*\* | 0.518\* | 1.235\*\*\* | -7.395\*\*\* | -0.761 | -1.150\* | -3.784 |
|  | (4.792) |  |  | (2.925) | (0.375) | (0.452) | (0.266) | (0.294) | (0.579) | (1.342) | (0.647) | (5.260) |
| Child's Grade in School -- 10 | - | - | - | - | - | - | - | - | - | 6.856\*\*\* | - | 4.655 |
|  |  |  |  |  |  |  |  |  |  | (1.241) |  | (5.213) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations | 1,599 | 1,591 | 1,224 | 328 | 1,422 | 1,609 | 1,602 | 1,607 | 1,603 | 1,604 | 269 | 1,591 |
| R-squared | 0.033 | 0.008 | 0.086 | 0.048 | 0.059 | 0.327 | 0.245 | 0.239 | 0.080 | 0.053 | 0.172 | 0.271 |
| Robust standard errors in parentheses | | | | | | | | | | | | |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | | | | | | | | | | | |
|  | | | | | | | | | | | | |
| a A school is considered treated if a Power Within Club has been implemented in the school’s community for longer than six months. | | | | | | | | | | | | |
| Note: To interpret the dummy variables on grade, egraletter, egraorf2, egracomp1, egmanumb, egmaadd, egmaquant, egmamiss and egmaadd are with respect to Grade 10, egrainvent is with respect to Grade 9, egraorf1 is with respect to Grade 8, , egmasub and egmatotal are with respect to Grade 0 and egmaprob is with respect to Grade 5. | | | | | | | | | | | | |

1. <http://www.fews.net/southern-africa/zimbabwe>, accessed on 07/01/16 [↑](#footnote-ref-1)
2. There were 1,008 lost girls; with all of them replaced, an additional 876 (31%) girls were added as sample size boost. [↑](#footnote-ref-2)
3. Attendance spot checks were inadvertently excluded from the school-based tools. [↑](#footnote-ref-3)
4. Due to pressure from local authorities, a control school Mbetengwe in Beitbridge also received the interventions. This school was included in the partially-treated group because it was exposed to less than six months of the interventions. [↑](#footnote-ref-4)
5. The variable that indicates whether a girl had been a replacement or a substitute in the midline assessment if she had not been assessed in the baseline has several missing values and logical errors. Therefore, getting an accurate count of the girls in these two categories is difficult. However, if it is assumed that the lost girls were completely replaced, the composition of the midline sample would be 1,927 reconnected, 1,008 replacement and 876 substitute girls. [↑](#footnote-ref-5)
6. If girls were recorded as being in a grade in the midline survey that was four or more grade levels above (or below) their corresponding baseline grade, their midline grade was recoded to missing. There were 64 girls who had this type of mismatched grades between the baseline and midline. Since grade is considered an important control variable for the DiD regression, girls with missing midline grade designations were dropped from the analysis. [↑](#footnote-ref-6)
7. The EGRA oral reading fluency test 1 (egraorf1) was only administered to students who were in baseline grade cohorts 1 – 5. The EGRA oral reading fluency test 2 (egraorf2) was only administered to students who were in baseline grade cohorts 6 – 10. [↑](#footnote-ref-7)
8. The word problem assessment was only administered to students in grades 6 or above. [↑](#footnote-ref-8)
9. As mentioned previously in the report, self-reported definitions of treatment were not used because it is believed that there are many errors in these variables. Additionally, due to issues with unique IDs in the Teacher’s Survey, we were not able to merge the attendance data with other data (e.g., Child’s Survey or Caregiver’s Survey). Thus, it was not possible to analyze the impact of the interventions directly on attendance (i.e., did a child actually receive a bike or not). Rather, we used a definition of treatment based on whether the community had received an intervention for greater than six months. [↑](#footnote-ref-9)
10. The UNESCO Institute for Statistics (UIS) prepared a spreadsheet that can be used to calculate the survival rate: http://www.uis.unesco.org/Library/Glossary/COHORTeng.xls. [↑](#footnote-ref-10)
11. Not a statistically significant difference. [↑](#footnote-ref-11)
12. Baseline assessment report, October 2015 [↑](#footnote-ref-12)
13. Gokwe North, Gokwe South, Mberengwa, Nkayi, Insiza, Lupane and Beitbridge [↑](#footnote-ref-13)
14. 25% in Gokwe North, 18% in Nkayi, 17% in Gokwe South, 11% in Mberengwa, 4% in Insiza. [↑](#footnote-ref-14)
15. One of the 32 control schools received the intervention and for the purposes of analysis is now considered a treatment school, thus the total number of treatment schools has increased from 52 to 53. [↑](#footnote-ref-15)
16. If a girl’s recorded grade in the midline was +/- 4 grades different from her grade in the baseline, her overall midline grade was recorded as missing. [↑](#footnote-ref-16)
17. The wealth index is a composite of information on housing materials, sanitation conditions, access to water and electricity and ownership of select assess (e.g., televisions, radios or bicycles). The wealth index is formed using a principal components analysis (PCA) which assigns a value to each item based on its ownership (or not). Desirable items, such as cement floors, are assigned higher (positive) values and less desirable items, such as collecting water from a river, are assigned lower (negative) values. As such, composite scores of wealth can range from negative to positive. [↑](#footnote-ref-17)