Project Evaluation Report

Report title:	Improving Life Chances for Girls with Disabilities in Kampala, Uganda – Programme Evaluation Baseline Report
Evaluator:	Montrose Africa
GEC Project:	Improving Life Chances for Girls with Disabilities in Kampala, Uganda
Country	Uganda
GEC window	GEC-Transition
Evaluation point:	Baseline
Report date:	November 2018

Notes:

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

Girls' Education Challenge

UKaid from the British people

Improving Life Chances for Girls with Disabilities in Kampala, Uganda
Programme Evaluation
Baseline Report
VERSION 3

SUBMITTED NOVEMBER 2018

Girls' Education Challenge

UKaid from the British people

Cheshire Services Uganda

montrose

Contents

Table of tables

List of Figures

Acronyms

CBO	Community Based Organisation
CCTs	Centre Coordinating Tutors
CRC	Convention on the Rights of the Child
CRPD	Convention on the Rights of Persons with Disabilities
CSU	Cheshire Services Uganda
CWDs	Children with disabilities
DES	Directorate of Education Standards
DFID	Department for International Development
DID	Difference in Difference
EGMA	Early Grade Mathematics Assessments
EGRA	Early Grade Reading Assessments
ESSP	Education Sector Strategic Plan
FGDs	Focus Group Discussions
FM	Fund Manager (PWC)
GEC-1	Girls Education Challenge
GEC-T	Girls Education Challenge – Transition
GoU	Government of Uganda
GWDs	Girls with Disabilities
HCB	Household Chore Burden
HH survey	Household survey
HT	Head Teacher
HOH	Head of Household
IDD	International Day of Disabled Persons
IE	Inclusive Education
IEC	Information, Education, and Communication
IO	Intermediate Outcome
IRR	Inter-rater reliability
KCCA	Kampala Capital City Authority
KII	Key Informant Interviews
LOIs	Language of Instruction
LC	Listening Comprehension
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments and Agencies
MEL	Monitoring, Evaluation and Learning
MGLSD	Ministry of Gender, Labour and Social Development
MoES	Ministry of Education and Sports
MoH	Ministry of Health
NAPE	National Assessment of Progress in Education
NCDC	National Curriculum Development Centre
ORF	Oral Reading Fluency
PTA	Parent Teacher Associations (PTAs)
PLE	Primary Leaving Examination
PWDs	Persons with Disabilities
RAG	Red Amber Green
RC	Reading Comprehension
SACMEQ	The Southern and Eastern Africa Consortium for Monitoring Educational Quality
SDGs	Sustainable Development Goals
SeGMA	Secondary Grade Mathematics Assessments

SeGRA	Secondary Grade Reading Assessments
SMC	School Management Committee
SNE	Special Needs Education
TLMs	Teaching and learning materials
ToC	Theory of Change
TVET	Technical vocational education and training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNEB	Uganda National Examinations Board
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
VfM	Value for Money
WASH	Water and Sanitation Hygiene
WP	Word Problems
WPM	Words Per Minute
WGQ	Washington Group of Questions

Executive Summary

Cheshire Services Uganda (CSU), Girls Education Challenge-Transition (GEC-T), is a seven-year (2017-2024) project which aims to support 2060 girls and 586 boys with disability in grades P2 to S3, living in low income communities of Kampala city. Ugandan education comprises 7 years of primary, 6 years of secondary and 3-5 years of tertiary or transition to Technical and Vocational Education and Training (TVET). Children supported by the programme live in the divisions of Nakawa, Kawempe, Rubaga, and Central. They are distributed in 391 primary and secondary schools, and 10 TVET.

Theory of Change (ToC)

The programme is implemented within a legislative framework that recognises and guarantees the rights of persons with disabilities to respect and humanity as outlined within the 1995 Uganda Constitution and the Disability Act 2006. However, significant barriers remain for children with disability in the formal education system in Uganda, including poor provision of appropriately adapted learning materials, teachers who are not trained in inclusive education and infrastructural challenges of school facilities such as toilets and classrooms which are difficult to access for Children With Disabilities (CWDs). These barriers lead to lower transition rates, poor attendance at school, weak learning outcomes and eventually to increased drop-out rates. High levels of poverty add an additional barrier with respect to parents' ability to pay for fees and scholastic materials required for children to stay in school.

The ToC underpinning this GEC-T project seeks to reduce the above-mentioned barriers and improve the life chances of girls with disability by improving their learning outcomes in literacy and numeracy. CSU aims to achieve this by focusing on the following intermediate outcomes: attendance, teaching quality, self-esteem, economic empowerment, and governance, environment, attitudes and perceptions. These intermediate outcomes are inextricably linked to the overall outcomes of learning, transition and sustainability.

Project Evaluation

This evaluation assesses the impact of the GEC-T project outcomes and intermediate outcomes. It takes a longitudinal approach involving four key evaluation points: 2017/18 (baseline), 2018/19 (midline 1); 2022/23 (midline 2) and 2024 (endline).

The evaluation design used a mixed methods approach, employing both quantitative and qualitative tools. The quantitative assessments included Early Grade Maths Assessment (EGMA), Early Grade Reading Assessment (EGRA), Secondary Grade Maths Assessment (SeGMA) and Secondary Grade Reading Assessment (SeGRA). These tools were contextualised for the Ugandan setting and adapted for children with four disability types – difficulty hearing, difficulty seeing, physical difficulty and intellectual difficulty. The evaluation took a Difference In Differences (DID) approach comparing the competencies – and inequalities - in literacy and numeracy of children with disabilities (intervention group) to children without disability (control group). The evaluation sought to answer the following research questions:

1. What is the current situation for girls with disabilities in terms of literacy and numeracy proficiency? How does this compare to girls without disabilities?
2. Are there any factors that look to positively or negatively influence outcomes of disabled girls?
3. How far do the planned strategic interventions align to the current needs of Girls with Disabilities (GWD)? What are the barriers?
4. Are there any additional opportunities that could be leveraged by building on current strategies to improve pupil outcomes?

Overall 538 learners participated in EGMA and EGRA whilst a total of 438 learners participated in SeGRA and SeGMA. In addition, 14 policy makers and school administrators participated in Key Informant Interviews (KIIs), and 12 boys and 12 girls participated in Focus Group Discussions.

Findings

Key findings from the baseline are categorised into project outcomes and intermediate outcomes below.

Outcome 1: Learning

On the whole, results in literacy and numeracy for learners in both the intervention and control groups were poor, demonstrating below grade level achievements in both literacy and numeracy. Learners did not perform up to expectation in any of the designed subtasks or performance standards for their grade levels in either literacy or numeracy. Improving literacy and numeracy outcomes for children in the programme is a critical task. It is important to note that these findings are not surprising in Uganda, given that the majority of learners around the country perform poorly on similar assessments at all levels of the primary and secondary education system. For example, a study conducted in Uganda by RTI found that the majority (48.9%) of P3 learners had a WPM rate of between 1-20 words with an average of 16.3 WPM[1]. This suggests there is a major crisis in learning in schools and classrooms across Uganda affecting all children – not just those with disabilities. That said, when looking at the weighted average differences between treatment and control groups who are achieving grade level or above percentage scores in those EGMA and EGRA subtasks that were consistent throughout all the grades it can be seen that the control group were scoring an average of 7%, 15% and 3% more than the treatment group for mathematical word problems, oral reading fluency and reading comprehension respectively.

Literacy: Based upon the categorisation of learner outcomes provided by the Fund Manager (FM), the majority of P3 learners were rated as non-learners in the oral reading fluency (51.9%) and comprehension (74.1%) subtasks; 62.2% P4 learners also performed at non-learner status in the comprehension subtask. This is well below grade level expectations, as learners should be readers by the time, they are in P3 and P4. More P4 learners performed at emergent levels in the oral reading fluency (45.9%) and comprehension (27.0%) subtasks than children in P3. Learners in P5 and P6 demonstrate a logical progression from non-learner to proficient across P3 subtasks of increasing difficulty. The majority of P5 learners were rated as emergent in the oral reading fluency (P5- 41.79%) and comprehension (P5- 37.31%) subtasks. The majority of P6 learners were rated established in the oral reading fluency (P6- 41.4%) and emergent in the reading comprehension sub-task (P6- 37.31%). However, less than 10% of learners in either grade ranked at proficient levels in reading or comprehension subtasks. *This means that they are still not reading with the degree of fluency or comprehension expected at these grade levels.*

Between 40%-80% of P7-S3 learners performed at proficient levels on the grade three oral reading fluency subtask on the EGRA; more performed at emergent and established levels on reading comprehension subtask which was also targeted at a P3-level learner. Therefore, whilst it is positive that the P7-S3 learners were achieving emergent, established and proficient levels, given the level of the test is far below their current education, these results are poor. Results on the SeGRA – which was testing at a P5 level - were poor for P7 and S1 learners, who performed at mostly non-learner or emergent status in the reading comprehension subtasks. Less than 15% of learners from P7-S2 performed at proficient levels in any SeGRA subtask. *In summary, this means that P7-S3 learners are performing far below expectation and are unable to read and understand texts below their grade level.*

Overall, learners in the control group performed better than learners in the treatment group in literacy as shown by the weighted average scores across all grades for both oral reading fluency (29% - Treatment and 43% - control) and reading comprehension subtasks (41% - Treatment and 44% - control).

Numeracy: A large percentage of P3 and P4 learners performed well on the number identification and discrimination subtasks although achievements are below grade level expectation. P3 learners generally performed at non-learner status on more complex subtasks like missing number (44.4%), subtraction (27.0%) and word problems (37.0%); between 3.7%-18.5% performed at proficient levels on any of these

[1] file:///C:/Users/charl/Downloads/EGRA_Uganda_FINAL_121410.pdf

subtasks, though they are tasks learners in that grade should be able to perform. P4 learners demonstrated similar progression, but with less than 21.6% of learners ranking in the non-learner category across all subtasks.

A large percentage of both P5 and P6 learners performed well on the number identification (P5- 71.64%; P6- 84.48%) and discrimination (P5- 83.58%; P6- 81.03%) subtasks which is a key skill that learners in P1 or P2 should be able to perform so achievements are below grade level expectation. *Generally, P5 and P6 leaners demonstrate capacity on lower level numeracy tasks and poorer proficiency on higher level subtasks; however, all performance was below grade level expectation.*

Learners from P7 to S3 demonstrate a logical progression from emergent to proficient across subtasks of increasing difficulty. Overall 76.4% of P7 learners performed at emergent status on the SeGMA subtask 1, which is set at P5 level difficulty. S1-S3 learners generally performed at emergent status on the SeGMA subtasks, which is below grade level expectations. Less than 15.0% of learners from S1-S3 performed at proficient level in any SeGMA subtask.

Overall, learners in the control group performed better than learners in the treatment group in numeracy proxied by the sub-group weighted average scores across all grades for the word problems subtask (29% - Treatment and 43% - control).

Disability Type: Learners with identified difficulties in self-care performed the worst on average across all grade clusters and disability types in both literacy and numeracy assessments. Learners with difficulty hearing and seeing performed the best on average across all grade clusters and disability types in both literacy and numeracy.

Outcome 2: Transition

As this is the baseline evaluation, the results of transition are based upon self-reported rates of learners who, when asked, stated to have been in the same class the year before. This data, whilst useful, is not entirely reliable as there are always possible challenges with mis-reporting. The results suggest an overall transition rate of 90.4% for intervention learners compared to 92.1% for control learners. This indicates that 1.7% more control group learners have successfully transitioned compared to the intervention group, although the same number of intervention and control learners managed to successfully transition from primary to secondary school.

Outcome 3: Sustainability

A sustainability score card scoring the programme from 0-4 against clearly defined indicators was developed to focus on three key aspects of sustainability – Community, School and System, measuring changes as follows:

- **Community**: The number of parents who are able to contribute towards the payment of school fees over time as a result of income generation activities supported by CSU
- **Schoo**l: The policies and practices that the school authorities put in place to create an inclusive environment for CWDs
- **System:** The actions of government agencies responsible for education within Kampala and nationally in Uganda.

At the baseline stage Community is scoring ‘1-Latent’, School is scoring ‘0/1-Negligible/Latent’ and System is scoring ‘0-Negligible’. This is to be expected as these interventions are just beginning and so the impact of these activities is not yet visible. In subsequent midline and endline evaluations these scores should be seen to increase as a result of the CSU GEC-T interventions.

Intermediate Outcome 1: Attendance

When asked, 37.8% of learners in the intervention group and 45.4% of learners in the control group reported missing school at least once in the past week. This suggests that the provision of school fees by CSU is

already having a positive effect on learner attendance compared to the control group. However, this could also suggest that barriers to improved attendance are broader than just financial support. Learner attendance should be carefully monitored, and strategies taken to improve the average attendance rate, as poor attendance has a direct, negative effect on overall learning.

Intermediate Outcome 2: Teaching Quality

Classroom observations and teacher interviews revealed that whilst 88.3% of teachers reported having received training on teaching children with disabilities, only 3% were observed to be using the specially adapted materials available to them in the classroom. Furthermore, 85% of teachers think CWDs should be sent to a special school with the necessary resources to educate them rather than keeping them in a mainstream school. Contrary to this finding, 95.2% of teachers said they felt they could get through to even the most difficult and unmotivated students with disabilities if they try really hard. However, 96.8% of teachers also said they felt that students with disabilities will never perform well academically, regardless of the support given to them. Their responses are contradictory and show that teachers know they are expected to be able to educate children with disabilities, but when probed further are hesitant and negative towards teaching CWDs – possibly due to their lack of resources and knowledge to fully accommodate these learners.

Intermediate Outcome 3: Girls' Self Esteem

Control group students were more likely than the GWDs to think they would pass their exams (control: 95.7%; intervention: 97.4%), feel they can do things as well as their friends (control: 95.1%; intervention: 91.3%) and will be rewarded with a good job if they work hard (control: 97.7%; intervention: 90.0%). With respect to self-esteem issues relating specifically to being disabled, 45.0% believe others think they cannot achieve much in life as a result of their disability and 38.6% believe having a disability has spoiled their life. Self-esteem should be closely monitored in the programme to ensure interventions are gearing at developing girls' positive attitudes towards their abilities and performance, as they will prove a critical factor to their success in school.

With respect to key Life Skills, families hold the most decision-making power about their girl child's education and future working life. Interestingly control girls without disabilities reported feeling less agency when it came to the decision as to who decides whether or not they will continue in school (control P7-S3: 9.1%; intervention P7-S3: 16.1%). However, on the whole both groups felt left out of decisions concerning their future, which are decided by their parents/guardians (control P7-S3: 85.7%; intervention P7-S3: 72.4%). This shows an opportunity to engage parents/guardians on the merits of including girls in decisions made about their lives, so they can be more motivated and potentially more fulfilled.

Intermediate Outcome 4: Economic Empowerment

Economic empowerment is a somewhat relative term and comparing our intervention and control groups, both of whom reside in lower socio-economic areas, has shown that there are similarities between the two groups. Overall, findings suggest that most households regularly spend more money than they earn in both the intervention (54%) and control (56%) groups and only 2 in 10 households have the ability to regularly pay bills on time. In addition, there are no significant differences noticed between the intervention and control groups with regard to the expenditure, possession of an emergency fund, and sources of income. The findings confirm the high levels of financial vulnerability amongst both the intervention and control participants which corresponds to the project being implemented in some of the poorest areas of Kampala

Intermediate Outcome 5: Governance, Environment, Attitudes and Perceptions

Whilst at national and higher-level policy there is evidence of institutional frameworks, funding for specialised adapted learning materials, a SNE task force and willingness by key leaders to reduce barriers to education for CWDs, enormous challenges still exist, particularly where competition for limited public resources are concerned. Schools do not receive earmarked funding for inclusive education. As a result, mainstream schools which enrol CWDs struggle to meet their needs and this in turn affects attendance, transition and therefore learning outcomes.

With respect to caregiver attitudes and perceptions, most parents/care givers of GWDs wish their child to grow up to attain further education (44%) or get jobs (39%). Similarly, only a small proportion of caregivers in the intervention (6%) and control (3%) groups agree that GWDs should not go to school. This suggests that caregivers of both disabled and non-disabled children believe that a child with disability can equally achieve a meaningful life. That said, child protection and child rights remain an issue as both intervention (16.8%) and control (17.8%) groups agree that corporal punishment is acceptable in schools and that child beating is allowed at home (50.5% intervention, 48.6% control).

Outputs

The CSU GECT project is working to achieve six outputs. Overall, the project progressed well on all outputs except for output 2 on accessibility and sanitation improvement activities that were pushed to year 2.On the first output that relates to disabled children receiving direct support, findings show that 97% of the beneficiary children received direct support (bursaries, scholastic materials, uniforms, and transport among others. On output 2, implementation was delayed and pushed to year 2. The first outputs relate to IO1: attendance, to contribute to retention in school. Regarding IO2: teaching quality, the project seeks to build capacity of teachers to deliver literacy and numeracy in a gender and disability inclusive setting; a total of 1723 teachers (1153 females and 570 males) were supported to benefit from the inclusive education, literacy delivery methodologies and support supervision by the CCTs. Output 4: disabled girls receiving life skills training, career guidance, child protection and participation in extra curricula activities to contribute to successful transition relates to IO3: girls` self-esteem, saw the project empowering 1295 children (899 girls and 390 boys) with interventions to increase their confidence and career aspirations. T The fifth output: increased family income and increased willingness to support to the education of GWDs, relates to IO4: economic empowerment had the project reaching 174 sessions on income generation and disability and gender trainings to empower the parents to support the education of the children. Output 6: school, community and education actors sensitised on disability, gender and inclusive education to promote education of girls with disabilities, relates to IO5: governance environment, attitude and perceptions had 90 sensitisation sessions were held at different levels to increase awareness on disability, gender, and inclusive education.

Marginalisation and Gender

The CSU project sits firmly within the GESI Sensitive category of the GEC-T GESI continuum somewhere between GESI Accommodating and GESI Transformative. This is because whilst CSU aim to actively transform inequalities between girls with and without disabilities, their project is not aimed at reducing inequalities between all socially excluded and marginalised groups.

The project beneficiaries are without doubt some of the most marginalised within Kampala and arguably, within urban Uganda. However, when comparing intervention and control groups there were very few characteristics which were statistically significant between the groups. This is because the children in both groups are attending the same schools and residing in areas of similar socio-economic status.

The CSU programme is more strongly focussed on addressing inequalities between children with disabilities and children without disabilities than in addressing gender inequalities. Gender inequalities relates to both boys and girls being treated differently on account of their sex. The majority of the CSU beneficiaries are girls, and, due to this being seen as unfair towards boys with disabilities during GEC1, the project design has factored in a proportion of boys to be supported to reduce this inequality and ensure the project design is more gender sensitive.

Conclusions

Overall the findings in this report support the relationships, barriers and assumptions in the ToC. Similarly, findings confirm the logical linkages and progression between outputs, intermediate outcomes and outcomes which underpin the theory behind the intended change that will occur as a result of CSU's interventions.

The regression analysis which examined the influence of each intermediate outcome on aggregate learning scores of both girls with- and without disabilities suggests that disability is having an impact girl's learning outcomes - with non-disabled girls performing better than the disabled girls. Findings from this analysis also show that there is a positive correlation between girls' school attendance, self-esteem and their learning outcomes implying that more efforts towards those two intermediate outcomes would positively impact the project's intended outcome. As this is the beginning of a 7-year programme aiming to reduce these inequalities, it is hoped that, over time this trend will change and the inequalities in learning outcomes between disabled and non-disabled girls will be reduced as a result of the CSU interventions.

This baseline evaluation is the starting point against which progress will be measured, and therefore the effectiveness, efficiency and impact of the programme will depend upon the implementation of activities over the next 7 years. Changes as a result of the GEC-T programme and progress towards achieving Outcomes and Intermediate Outcomes will be closely monitored and evaluated at key points during the life of the programme to ensure the contribution towards improving the lives of children with disabilities in Uganda is accurately measured and documented.

Recommendations

The focus of this report, at the baseline stage, is on the current situation prior to project interventions. As a result, learning outcomes have featured more heavily in this evaluation than transition and sustainability outcomes which will be more easily observed and analysed at midline and endline evaluation points once the intervention cohort has begun to transition from this starting point. Recommendations for including learning[2] outcomes include:

1. Improving instruction and pedagogical practices amongst teachers in literacy and numeracy is a highly technical and intensive intervention. CSU should identify what support it can effectively give teachers to help them improve their instructional capacities.
2. Focussing on improving teacher time on task in the classroom, including things like effective learning strategies, use of appropriate resources, grouping strategies and student-centred learning techniques to improve the learning environment.
3. Teacher and learner attendance and time on task in the classroom should both be monitored by CSU to see if these results improve as daily teacher/learner attendance and classroom engagement has a significant impact on overall learning outcomes.

[2] Please note that recommendations for improving transition and sustainability will be possible at the midline and endline evaluation points.

1 Background to project

1.1 Project Context

In Uganda, only 13% of girls complete secondary school education.[3] Whilst there is broad consensus that in order to advance a country's overall development it is necessary to educate all children especially girls, without a committed approach to the education of girls in Uganda they remain at higher risk of illiteracy, HIV and early marriage. This in turn both limits girls' potential and constricts the economic growth of the country.[4] The foundations for academic success and a skilled citizenry is laid through advancing the literacy and numerical skills of girls in Uganda. Efforts to align with the Sustainable Development Goals (SDG4) by increasing access to inclusive and equitable education in Uganda, will go a long way to help break the cycle of poverty which many urban, peri-urban and rural communities experience.

Children with Disabilities (CWD) almost always face additional barriers to accessing education as a result of discrimination by teachers and other pupils, lack of assistive devices to enable learning and families who are unable or unwilling to pay school fees for their disabled children. As a result, it is estimated that only 9% of CWDs who are of school going age are enrolled in primary school, compared with a national average of 92%[5] of children, 94% of these CWDs drop out during the basic education phase, leaving only 0.54 of the CWDs studying at secondary school level compared with a national average of 25%[6].

The Government of Uganda, alongside other local and international development organisations, has recognised the importance of equitable education. Specifically, the Government of Uganda (GoU) aims to '*provide for, support, guide, coordinate, regulate and promote quality education and sports to all persons in Uganda for national integration, individual and national development*'.[7] Such commitments are emulated in the Education Sector Strategic Plan (ESSP) 2017/18 - 2019/20, whose specific objective to achieve equitable access to education and training includes interventions aims to improve the participation of disadvantaged persons including girls and Persons with Disabilities (PWD) at all levels of education. Other initiatives include the establishment of the Special Needs Department of the Ministry of Education and Sports (MoES) and the Faculty of Special Needs and Rehabilitation (Kyambogo University) whose mandate is to train special needs education teachers.

1.1.1. Educational context in Uganda

The formal education system in Uganda comprises 3 years of pre-primary education, 7 years of primary, 6 years of secondary school and three to five years of post-secondary education in a tertiary or vocational institution. Primary education is considered to be the first official level of education by most Ugandans.

To improve the quality of education in schools, a number of Quality Enhancement Initiatives (QEIs) which included the construction of classrooms, libraries and laboratories in many schools have been implemented. A review of the Primary School and Primary Teacher Colleges' curricula was conducted to make them more relevant to the country's needs. In addition, in lower primary schools (Primary 1 to 3)[8] the MoES introduced local language as the Language of Instruction (LoI).

The MoES 2003/4 Curriculum Review found that lack of learning amongst primary school going children was partly due to a disparity between the current primary curriculum and the amount of appropriate teacher

[3] UNICEF Data, (2013) 'Upper secondary completion rate among population aged 3-5 years above secondary graduation age – Percentage', Data and Analytics Section, Research and Policy' accessed at: https://data.unicef.org/topic/education/overview/.
[4] UNICEF, (2015) 'The Investment Case for Education and Equity'.
[5] Source: MoES: Uganda Education Statistical Abstract 2009, 2010 and a.
[6] https://www.unicef.org/uganda/UNICEF_CwD_situational_analysis_FINAL.pdf
[7] Ministry of Education and Sports Mission. http://www.education.go.ug/data/smenu/1/Mission%20and%20Objectives%20.html
[8] UNICEF, (2010) Child Friendly Schools Case Study: Uganda, accessed at: unicef.org/uganda/CFS_Uganda_Case_Study_January_2010.pdf

training.[9] Similarly the Curriculum Review found that children were not learning to read due to a gap within the current primary curriculum in the area of foundational literacy skills and the lack of appropriate teacher training.

The GoU has built a strong regulatory framework to promote the provision of education of CWDs[10]. This includes the promulgation in 1995 of the Uganda National Institute of Special Education Act, which introduced Special Needs Education. In the same year the Constitution of Uganda recognised the right of persons with disability to respect and human dignity[11], and similarly outlawed discrimination on the basis of disability and recognised the right of all children to benefit from primary education[12]. More recently, the Disability Act of 2006 and the National Policy on Disability in the same year promoted equal opportunities and enhanced empowerment, participation and protection of rights of persons with disabilities irrespective of gender, age and type of disability. The Education Act of 2008 also forms part of this regulatory framework, making primary education compulsory for all children.

1.1.2. Factors affecting learning outcomes in Uganda

In 2012 only 41% of primary Grade 6 students tested by the National Assessment of Progress in Education (NAPE) in Uganda were found to be proficient in literacy.[13] When comparing this with other countries in the region, the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) found Ugandan students to be in the lowest third, with very few children reading to an international standard.[14] These poor performance levels are illustrated further in the UWEZO[15] survey, which found only one in ten children assessed at Primary 3 were able to read and comprehend a Primary 2 level story and correctly solve Primary 2 level arithmetical division.

There are multiple factors affecting learning outcomes in Uganda. The following are related specifically to those barriers to learning which the interventions of the Cheshire Services Uganda (CSU) programme aim to address:

- **High levels of poverty resulting in inability to pay for education:** A lack of education strongly increases the level of income poverty in a country[16] which goes on to reduce parental ability to pay for uniforms, school books and other items required for children to attend schools despite the tuition being free under the GoU Universal Primary Education (UPE) initiative. This leaves Uganda in a vicious cycle of poor education levels leading to increased poverty rates leading to lack of funding for education of the next generation. Global evidence has shown the high economic and social returns possible through providing girls with an extra year of primary schooling, which can lead to girls earning as much as 20% more than they would have done without this extra year. These wage increases are likely to be reinvested into girls' families and communities. So, with adequate provision of education, issues of income poverty and gender inequality can be ameliorated.[17]
- **Poor teacher training resulting in low quality of teaching:** The low quality of teaching also contributes to Uganda's poor learning outcomes.[18] Teachers enter the profession with limited subject knowledge and few pedagogic skills, with little opportunity to develop thereafter. When the only professional support available is from head teachers who lack leadership skills, have limited career

[9] Ministry of Education and Sports of Uganda 2003/4 curriculum review report.
[10]Uganda Society for Disabled Children, (2017) Inclusive Education in Uganda – Examples of Best Practice, accessed at http://afri-can.org/wp-content/uploads/2017/11/Inclusive-Education-in-Uganda-examples-of-best-practice-March-2017.pdf
[11] Article 16
[12] Article 32
[13] World Bank (2013). Project Appraisal Document for the Uganda Teacher and School Effectiveness Project.
[14] Piper, B. 2010. Uganda Early Grade Reading Assessment – Findings Report: Literacy Acquisition and Mother Tongue. Research Triangle Institute International.
[15] Annual Learning Assessment Report, 2014.
[16] Lloyd C. B. (2011) Evidence Paper for Girls' Education Challenge Fund, Consultancy Report to DFID.
[17] Psacharopoulos and Patrinos (2004), Returns to investment in education: a further update, Education Economics 12(2).
[18] According to DFID Education Evidence Paper 2014, teacher quality has the greatest impact on learning outcomes.

prospects and are not motivated as exhibited by high rates of absenteeism, then this cycle of low teacher quality is reinforced.

- **High drop-out rates resulting in low levels of completion of primary school education:** This is particularly noticeable between grades 6 and 7 – during the time when children are preparing for the Primary Leaving Examination (PLE). As Uganda's population is expanding, the proportion of Ugandan children dropping out of school early with a low level of skills and education is also increasing with completion rates at 58% in 2008 down to 55% in 2011[19]. Consequently, many Ugandan children lack the economic and social benefits and the individual well-being derived from completing the basic education cycle.[20]
- **Inaccessibility of schools and inability of teachers to accommodate CWD resulting in low enrolment and high drop-out rates amongst CWD:** Specifically, for CWDs, the type of impairment held by the student is a major factor that influences their learning outcomes. Different impairments pose different transition challenges broadly due to infrastructural barriers, inaccessible curriculum, and attitudinal barriers. A UNICEF situational analysis report from 2014, reported that children with sensory disabilities (e.g. visually- and hearing-impaired children) were more likely to access schools and complete primary level compared to children with mental and cognitive disabilities (e.g. autism) as well as children with multiple disabilities.[21] In addition, inaccessible buildings and toilets is a major factor that causes dropouts from school. Significantly, between 2009 and 2011, 94% of CWD dropped out of school between the primary and secondary levels.[22]

1.1.3. Gender inequalities and marginalisation in Uganda

Despite progress in global literacy rates, gender disparity in youth literacy remains, with two-thirds of the world's illiterate population being women. This gender-based disparity is particularly serious in sub-Saharan African countries.[23] Limited access for girls and particularly Girls with Disabilities (GWDs) leads to educational marginalisation which UNESCO describes as a '*persistent disadvantage rooted in underlying social inequalities*.[24] The GEC has identified specific factors and processes that contribute to girls' marginalisation. These can be understood as social, economic, contextual and time factors.[25] Hence, GWDs face a double marginalisation - the gender disparity in education and the negativity arising from having impairment.

To promote inclusivity, Uganda has committed on the international stage to the Sustainable Development Goals (SDG), to *'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'*[26] irrespective of cultural, gender, regional, physical or social differences. Additionally, the GoU has ratified the United Nations Convention on the Rights of the Child (CRC)[27] and the United

[19] https://www.unicef.org/uganda/OUT_OF_SCHOOL_CHILDREN_STUDY_REPORT__FINAL_REPORT_2014.pdf
[20] Education and Economic Growth, International Encyclopaedia of Education Hanushek and Wossmann, 2010.
[21] Ministry of Gender, Labour and Social Development and UNICEF Uganda, (2014) Situational Analysis on the rights of children with disabilities in Uganda
[22] Dolorence Naswa Were, Uganda Society for Disabled Children (USDC), interviewed by Nadège Riche, 2013. UNICEF CwDs Situational analysis report, Page 31.
[23] UNESCO, (2017) Literacy Rates Continue to Rise from One Generation to the Next, accessed at: http://uis.unesco.org/sites/default/files/documents/fs45-literacy-rates-continue-rise-generation-to-next-en-2017.pdf
[24] UNESCO (2010) Education for All: Global Monitoring Report: Reaching the Marginalised, accessed at: http://unesdoc.unesco.org/images/0018/001866/186606E.pdf
[25] Girls' Education Challenge (2016) GEC discussion paper: Understanding and addressing educational marginalisation, accessed at: http://www.ungei.org/GEC_Thematic_discussion_papers.pdf
[26] Sustainable Development Goal 4
[27] The CRC rights are grouped together under the three themes: Survival, protection and development rights. The Development rights (Articles 28 and 29) include the right to education, health, play, leisure, cultural activities, access to information, and freedom of thought, conscience and religion.

Nations Convention on the Rights of Persons with Disabilities (CRPD)[28] , which both address the specific measures needed to protect the rights, including the right to education, of PWD including CWD.

Whilst statistics regarding CWD are often unreliable in Uganda, estimations suggest the child disability prevalence is approximately 13%.[29] Children with disabilities transitioning to post-primary institutions experience attitudinal, gender and age-related challenges resulting in bullying, teasing and harassment from the both peers and teachers in the school community. The challenges are particularly serious for adolescent girls. In response to these challenges, Uganda's MoES has committed itself to a national programme of early grade reading and is keen to extend the coverage of its current reading projects. However, due to the multifaceted challenges to teaching children literacy skills in the Ugandan setting, it is unlikely that one intervention on its own will remove all of the barriers to providing quality education.

On many levels, therefore, GWDs in Uganda face the most obstacles in accessing education. In addition, at the family level, the education of girls may be affected by the gender perception of girls. For example, families may want to have their daughters drop out of school and get married after primary education due to the existing gender stereotype and the preference for educating boys. These barriers might lead to early pregnancies, early marriages and the spread of STIs, which are all associated with early exit from school if not addressed by the project. To reduce the education marginalization of girls with disabilities, therefore, the project theory of change revolves around addressing barriers at various levels, including at the individual child, at the community and family, and at the school and system level.

1.2 Project Theory of Change and Assumptions

The project Theory of Change (ToC), was revisited and revised with facilitation support from Montrose as the External Evaluator in February 2018. The final ToC (see figure 1 below) demonstrates the manner in which the project aims to improve the life chances[30] of girls with disabilities by improving their learning outcomes in literacy and numeracy, ensuring that they transition through the appropriate grades from lower to higher institutions of learning and improving the supportive environment in which they live. More specifically, the project aims to:

I. Improve attendance rates of GWDs in specific project schools by providing direct financial support to the GWDs and their families in addition to supporting to improve accessibility and sanitary facilities of 20 selected project schools.

II. Enhance the teaching quality experienced by GWDs within project schools by training teachers on how to deliver lessons using inclusive teaching practices.

III. Better the self-esteem and agency of GWDs to increase their ability to make informed decisions about their lives by providing training on life skills, self-esteem and child protection support.

IV. Increase the willingness of families of GWDs to support their education by providing support through capacity building in financial management to increase or diversify the family income.

V. Contribute to creating and maintaining an inclusive environment in the school, community and governance system to support the needs of GWDs and thereby contribute to learning and transition.

The project identified negative attitudes towards disability amongst families, communities, and policy actors as the major barriers to education of disabled girls. At the community level, the low education attainment amongst disabled girls is attributed to denial of basic needs like health care, clothing and access to education. In addition, many GWDs have experienced, abandonment and neglect by parents, and been

[28] Ratified in 2008, the CPWD's process of implementation is a co-operative process that involves the States of the world. With regard to some rights, such as protection from violence, access to education, access to justice, access to health, and collection of data and statistics, it outlines in more detail than the CRC what needs to be done by governments.

[29] Uganda Bureau of Statistics (UBOS), Ugandan Population and Housing Census, Fountain Publishers, Uganda, 2005.

[30] Life chances are considered as the following: financial independence, independent decision making, independent living, equal participation in sectors of education, health, governance and employment.

subjected to hard labour, isolation, early and forced marriage, sexual abuse and poverty. At the school level the inaccessible school environment, lack of individualised support, limited capacity of teachers to deliver inclusive education add to the challenges faced by GWD. To overcome these challenges there is a need for early identification and assessment of each child's disability, accessible or adapted teaching and learning materials (TLMs) and better assessment methods for learners with disabilities.

Additional barriers to the education of GWD include the cost of education and the distance the child has to travel to get to school. It is also important to note that tuition costs in secondary school are much higher than in primary school thus impeding the transition of GWDs. Therefore, children with disabilities transitioning to post-primary institutions experience attitudinal, gender and age-related challenges, particularly for adolescent girls, resulting in bullying, teasing and harassment from their peers and teachers in the school community.

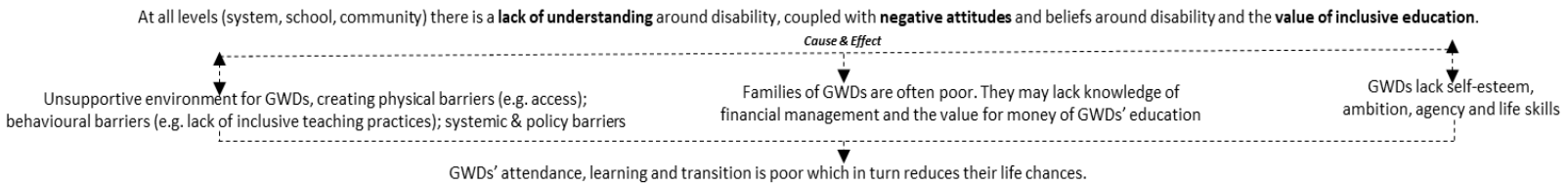
Different impairments also pose different transition challenges due to infrastructural and attitudinal barriers, and inaccessible curricula. For example, children with difficulty walking and climbing stairs experience access-related barriers if schools are far away, not adapted and above all if the child has no mobility device. Similarly, children with difficulty seeing and difficulty hearing experience challenges in accessing the curriculum due to no appropriate adaptation of teaching and learning materials and lack of assistive devices (glasses, hearing aids). In addition, children with difficulty remembering or concentrating and difficulty communicating are faced with teachers who lack the capacity to handle their situation.

Whereas children with self-care difficulties are more likely not to transition unless the schools allow them to have care givers to support them while they are in school.

FIGURE 1: PROJECT THEORY OF CHANGE

Impact	**Improving life chances for girls and women with disabilities in Uganda[31]**					
Outcomes	Improvement in literacy and numeracy **learning** outcomes of girls with disabilities in Kampala			Improvement in **transition** rates of girls with disabilities in Kampala		Improvement in **sustainability** of the supportive environment for learning and transition of GWDs
Intermediate outcomes	Improved attendance rates of girls with disabilities in project schools ***(Attendance)***		Increased number of teachers demonstrating **inclusive teaching practices** while teaching literacy and numeracy in class ***(Teaching Quality)***	Girls with disabilities have improved **self-esteem & agency** to make informed decisions about all aspects of their lives ***(Self-Esteem)***	Families use their improved income to financially support the education of their girls with disabilities ***(Economic Empowerment)***	Inclusive environment (school, household, policy, system) maintained to support the needs of girls with disabilities **(Governance, environment (attitudes & perception))**
Outputs	Output 1: 2060 GWDs receiving direct support to contribute to retention in school	Output 2: 20 Schools supported to improve accessibility and sanitary facilities, to contribute to retention in school	Output 3: Teachers with improved knowledge and capacity to deliver lessons using inclusive teaching practices	Output 4: Disabled girls receiving life skills training, career guidance, child protection support and participating in extracurricular activities to contribute to successful transition	Output 5: Increased family income and increased willingness to support to the education of GWDs	Output 6: Schools, Community, education actors sensitised on gender and inclusive education to promote the education of GWDs

[31] Life chances considered as the following; financial independence, independent decision-making, independent living, equal participation in the sectors of education, health, governance and employment.

Inputs (activities)	- Education cost support (tuition, scholastic materials, school uniform, sanitary pads) - School transport - Catch up/ remedial classes - Alternative care support for resettled GWD - Reproductive Health (menstrual cycle management) support to girls - Functional assessment rehabilitation - Tracking attendance and follow-up	- Accessibility Audit - Construction of accessible water borne toilets and water harvesting - Construction of accessible walkways and ramps	- Inclusive Education and gender in education seminars - Continuous capacity building on delivery of literacy and numeracy - Teacher support supervision by CCTs - Resource Centres construction and equipping with inclusive/ adapted teaching, learning and ICT materials suitable for GWDs	- Life skills training - Career guidance and counselling - Learning and mentoring camps for secondary school girls - Extra-curricular activities - Learning quiz awards - Reproductive health support to girls	- Parents' group loans - Parents' capacity building training on income generation - Parent's capacity building around budgetary management and the opportunity cost of educating GWDs	- Awareness sessions for key stakeholders (school, system, community) on disability, gender, IE and Child Protection - Development and production of in-school awareness IEC materials - Media campaigns (airing of radio spots and newspaper supplements) - Follow-up and referral of cases of abuse - Participation in public events (Woman's Day, Day of the African Child, Deaf Awareness week, IDD)	- Parents' capacity building sessions on disability management - Parents' capacity building sessions on gender - Inclusive Education Conferences - Orientation of School Management Committees, Head Teachers, CCTs, KCCA and ministry officials on disability, gender and inclusive education - Annual inclusive Education Recognition Awards - Networking and Membership Activities
Problem							

To achieve the project objectives therefore overcoming the abovementioned barriers, the following assumptions were made:

1. Attendance
    a. Direct support will lead to improved attendance and hence an in improvement in learning outcomes for GWDs
    b. Improved attendance and the application of inclusive teaching practices by teachers will lead to better performance of GWDs

2. Improved teaching quality
    a. Better equipped teachers will be motivated to support the learning process of GWDs
    b. Teachers will put into practice the acquired knowledge around inclusive teaching

3. Self-esteem and agency
    a. Girls with improved confidence and self-esteem will have higher aspirations for education and are more likely to transition.

4. Economic empowerment
   Capacity building in financial and disability management and the provision of loans will result in
    a. Increased or diversified household income
    b. Increased or diversified income leads to a greater proportion of household income spent on the education of GWD
    c. Parents/care givers improved willingness to educate their daughters.

5. Better transition rates for GWDs
    a. All programme activities will contribute towards transition. These programme activities will aim to improve learning outcomes, attendance, financial independence of the families of the GWDs, girls' self-esteem and agency, and improve the supportive environment leading to improved transition rates among GWDs.

If these assumptions hold, the project will aim to improve the life chances of GWDs in the Kampala area by

- providing direct education cost support, school transport, remedial classes, alternative care for resettled GWDs and reproductive health support
- building the capacity of teachers through training on how to apply inclusive and gender sensitive teaching practices in addition to equipping school resource centres with adaptive TLMs and Information Communication Technology (ICT) materials suitable for GWDs
- boosting girls' self-esteem through life skills training and creating avenues for GWDs to be engaged in extra-curricular activities
- building capacity of parents on income generation and how to manage GWDs by providing loans and training on the value of educating GWD
- Sensitise key stakeholders on gender and inclusive education, construct accessible flush toilets, walkways and ramps and facilitate a functional rehabilitation assessment on every girl to contribute to creating a supportive environment.

Outline of the Project Design and Interventions by Cheshire Services Uganda (CSU)
table 1 **Error! Reference source not found.**below outlines details of the various interventions planned to be implemented throughout this project, the intermediate outcomes they relate to and their contribution towards the outcomes in relation to learning, transition and sustainability.

TABLE 1: PROJECT DESIGN AND INTERVENTION

Intervention types	What is the intervention?	What Intermediate Outcome will the intervention contribute to and how?	How will the intervention contribute to achieving the learning, transition and sustainability outcomes?
Direct cost support	- Provision of school transport - Education cost support (tuition, scholastic materials, school uniform, sanitary pads) - Catch up/ remedial classes - Alternative care support for resettled GWD	These interventions will improve girls' **attendance** of school that has normally been hindered by a lack of tuition, sanitary material and low self-esteem due to poor performance compared to their non-disabled peers.	More regular attendance of GWDs implies more contact hours which is known to contribute to improved learning outcomes of GWDs
	- Parents' group loans	Through access to loans it is anticipated that the family head will be able to multiply the family income resulting in increased **economic empowerment**.	Increased family income is expected to remove the financial barrier to education and ensure girls' **transition** to higher institutions of learning
Capacity building	- Conduct Inclusive Education and Gender in Education seminars for 1500 teachers - Continuous capacity building on delivery of literacy and numeracy for 1500 teachers - Teacher support supervision by Coordinating Centre Tutors (CCT) - Annual inclusive Education Recognition Awards	Better motivated and skilled teachers provide improved **teaching quality** because they are confident and know how to create a more conducive learning environment for GWDs	Confident teacher in concert with a more conducive learning environment contribute to improved **learning** outcomes of GWDs through access to more inclusive teaching practices
	- Parents' capacity building training on income generation - Parents' capacity building around budgetary management and the opportunity cost of not educating GWDs	Attainment of income generating skills and financial management in families can result in the production of family income resulting in increased **economic empowerment**	Increased/diversified income is hoped to increase the willingness to support the education of GWDs and ensure their successful **transition** across all the relevant grades of schooling

	- Parents' capacity building sessions on gender - Parents' capacity building sessions on disability management	Community actors that are sensitised on gender, inclusive education and disability management with time change their **negative perception and attitude** towards the education of GWD	Improved understanding of the value of educating girls and GWD within a community helps to **sustain** initiatives geared towards a more **supportive environment** for learning and transition of GWD
	- Life skills training - Learning and mentoring camps for secondary school girls	These interventions are aimed at contributing to the **self-esteem and agency** of GWD by equipping them with the necessary skills to navigate through life	GWD with high self-esteem and agency stand a better chance of being able to make informed decisions about all aspects of their lives resulting in them achieving their future aspirations and hence contributing to the overall **transition** rates of GWD.
Teaching inputs	- Resource Centres equipped with inclusive/adapted teaching, learning and ICT materials suitable for GWD	The use or supplement of appropriately adapted TLM and learning spaces contribute to the **quality of teaching** received by GWD and hence their performance in school	Better teaching quality due to access to an adapted space and TLM leads to improved **learning** outcomes of GWD
Psychosocial support	- Direct Child Protection Support (referral and emergency response) - Reproductive Health (menstrual cycle management) support to girls	To ensure GWD **attendance** of school, these interventions aim to overcome the barrier of absenteeism due to poor hygiene and a lack of sanitary materials	The psychological health of a child promotes self-esteem and results in improved **learning** outcomes of GWD
	- Career guidance and counselling - Extra-curricular activities - Learning quiz awards	Increased involvement of GWD in the life of the school creates a sense of belonging and increases their **self-esteem**	More school involvement results in improved **transition** rates because GWD now have the confidence and desire to stay in school, learn and progress into and through successive grades of formal education
	- Child protection support activities - Functional assessment rehabilitation	These interventions aim to create a safe environment by protecting the rights of GWD by changing **attitudes and perceptions** of the	Better attitudes and perceptions towards GWD creates or maintains a **supportive environment** for

		community in which these children live	learning and transition of GWD
Accessible teaching and learning environment	- Construction of accessible flush toilets and water harvesting for new schools - Construction of accessible walkways and ramps for new schools	These interventions aim to overcome the barrier of mobility by making the school **environment** more accessible for the GWD.	More accessible environment contributes to the sustained attendance of the GWD due to a **supportive environment** for learning and transition of GWD
Community sensitisation	- Awareness sessions for key stakeholders (school, system, community) on disability, gender, inclusive education and Child Protection - Development and production of in-school awareness Information, Education and Communication (IEC) materials - Media campaigns (airing of radio spots and newspaper supplements) - Participation in public events (Woman's Day, Day of the African Child, Deaf Awareness week, International Day of Disability (IDD)) - Advocacy events - Networking and Membership activities	These interventions aim to increase the community awareness of gender, inclusive education and disability in order to facilitate a more **inclusive environment**	Improvement in the **supportive environment** leads to better learning and transition of GWD
Inclusive governance	- Inclusive Education Conferences (for school inspectors) - Orientation of School Management Committees, Head Teachers, CCT, Kampala City Council Authority (KCCA) and Ministry officials on disability, gender and inclusive education - Monitoring implementation of school-level policies and practices	These interventions aim to facilitate the creation of an education governance system that is sensitive to the needs of GWD by changing their **perceptions and attitude** towards PWD	A more positive perception of GWD enables a more **supportive environment** for learning and transition of GWD through development and implementation of more inclusive government policy and programmes

1.3 Target beneficiary groups and beneficiary numbers

Box 1: Project's contribution with respect to the target beneficiaries to be supported through this programme

The CSU Girls Education Challenge-Transition (GEC-T) project aims to support 2,060 girls with disabilities to complete the different cycles of education - primary, lower secondary, upper secondary or transition into Technical, Vocational Education Training (TVET). The target girls were supported under the GEC1 phase which ended in February 2017. A limited number of boys with disabilities (587) were also selected to benefit from the project in response to the backlash from communities and schools' experience during the GEC1. The children are distributed in 391 primary and secondary schools and 10 TVET institutions. Categorised by age, the current beneficiaries fall under the following age brackets; 5 - 9 years - 403 10 -`15 years – 1,406, and 16 years and above - 254.

According to the Washington Group classification, the girls are classified as having difficulty seeing (61.7%), difficulty hearing (17.5%), difficulty walking or climbing stairs (15.3%), difficulty remembering or concentrating (23.1%), difficulty with self-care such as washing all over or dressing (7.7%) and difficulty communicating (4.7%). The girls are in classes which range between grades P.2, S.3 and in TVET institutions. The project is being implemented in low income communities of the four Kampala City divisions of Nakawa, Kawempe, Rubaga and Central and will run for seven years starting April 1st, 2017 and ending 31st March 2024.

The main focus of the project is girls' learning and transition as well as system strengthening to contribute to sustainability. It is expected that every beneficiary will benefit from a combination of **direct support** in the form of education cost support (tuition, scholastic materials, school uniform, sanitary materials) and parent loans; **capacity building** through training GWD, their parents, teachers and actors within the education governance structure on aspects aimed at improving the supportive environment that the GWD live under; **teaching inputs** by way of increased access to resource centres equipped with adapted IEC materials to further the learning of GWD; **psychosocial support** through direct child protection services, functional rehabilitation assessments and life skills training for GWD; **accessible teaching and learning environments** through the construction of accessible walkways, ramps in schools and flush toilets; **community sensitisation** to raise awareness of key stakeholders (school, community, system) on disability, gender, inclusive education and child protection and **more inclusive governance** through orientation of school management committees, headteachers, CCTs, KCCA and Ministry officials on disability, gender and inclusive education.

For learning and transition, the project proposed a total of 712 children to be tracked for learning and transition. 516 (413 girls and 103 boys) tracked for learning while 196 (157 girls and 39 boys) are to be tracked for transition throughout the project life time. The cohort sample was expected to be selected from 50 schools (30 secondary, 20 primary).

Using the G*Power software, the following sample size for learning treatment (as a continuous variable) was calculated. Using the t test (Means: Difference between two independent means (two groups)), tail(s) = 1, Effect size d = 0.25, α err prob = 0.05, Power (1-β err prob) = 0.8, 33 Critical t = 1.647745 and Df = 528, a total sample size of 530 at a power of 0.801572 was obtained (Sample size group 1 = 133 and Sample size group 2 = 397). To allow for a large learning treatment sample cohort to be generated for tracking over the project period, an allocation ratio of 3 was chosen**. Therefore, the actual sample size for the treatment learning cohort that allowed for a 30% attrition rate was 516 (119+397) disabled children comprising 413 girls and 103 boys.**

To determine the sample size for the transition treatment cohort (as a binary variable) the following calculations were done. These calculations utilised z tests (Proportions: Difference between two independent proportions), tail(s) = One, Proportion 2 = 0.6, Proportion 1 = 0.4, α err prob = 0.05, Power (1-β err prob) = 0.8 and allocation ratio N2/N1 = 3. A total sample size of 202 at an actual power of 0.802388 and critical z = 1.644854 was obtained (Sample size group 1 = 51 and Sample size group 2 = 151). Similar to the learning cohort, an allocation ratio of 3 was selected so that a large transition treatment sample cohort would be generated for tracking over the project period. **Therefore, the actual sample size for the transition cohort**

that allows for a 30% attrition rate was 196 (45+151) disabled children comprising 157 girls with disabilities and 39 boys with disabilities.

On the whole, the project's proposed sample size for the learning cohort was 649 (133 control and 516 treatment pupils) and 247 (51 control and 196 treatment). In calculating these sample sizes, the main assumption made was that the project will only face a 30% attrition rates throughout its lifetime. Replacement of transition/learning cohort girls shall be done in case of the death of the child and in case of total failure to find the cohort child.

Following a review of the proposed methodology and sample sizes, Montrose counter-proposed a methodology that used an equal number of treatment/control participants. A sample size sufficient to detect differences in group means in learning outcomes (literacy and numeracy) was estimated using the assumption of random selection at the individual level (treatment and control). As per guidance provided by the GEC-T, the sample size calculation was based on a statistical power of 0.8, a 0.05 level of significance and a minimal detectable effect size of 0.25 SD.

The suggested parameters resulted in a sample size of 398 individuals. To account for attrition, the initial sample was increased by 30 percent; **517 individuals split between disabled (treatment) and non-disabled (control) girls were to be sampled at the baseline**. Similarly, a randomised sampling calculation for the sample size of the transition cohort yielded 154 individuals split evenly between treatment and control groups based on the assumptions of a 20 percent difference in the transition rates. Although, this sample size was sufficient to robustly estimate differences in the transition rates of disabled versus non-disabled girls, it was significantly smaller than the learning outcomes sample above. **Montrose, therefore, proposed the use of the same learning sample to monitor transition**, meaning that learning and transition samples can be effectively linked. Therefore, the sample size for the transition cohort was considered to be 517 based on the explanation above.

While randomised at the level of the individual, the sample selection protocol for the treatment group was to include proportional representation of the four largest disability categories (visual, hearing, physical and intellectual). For technical and logistical reasons, less prevalent, severe and multiple handicapping conditions were to be excluded from the sampling frame. For purposes of the study, any child that was completely deaf or blind and as a result was not in a mainstream school but a specialised school such as the school for the deaf or the school for the blind was considered to be with 'severe' disability. While this could have imposed some limits on the interpretation of evaluation results, they were still expected to be generalisable to the majority of the types of disabled children found in classrooms in Uganda.[32]

Finding enough disabled children with similar disability types and similar grades with no support from external sources to act as a control group would not be possible within Kampala. Therefore, Montrose proposed a different approach that would track all girls with and without disabilities as they progressed, with the project goal being to cause a reduction in inequality gaps. In the suggested approach, the disabled/non-disabled inequality gap would be compared over time in intervention schools only. It would still be a Difference In Difference (DID) approach, but one that compares disabled and non-disabled students rather than disabled students with intervention and disabled students without intervention. The "counterfactual" of non-intervention would be eliminated but a baseline measure of learning outcomes and inequality gap prior to intervention (at baseline) would be obtained.

[32] The categories included represent approximately 90 percent of the participants identified by Cheshire Services Uganda.

2 Baseline Evaluation Approach and Methodology

The following section outlines the approach to the evaluation methodology and draws from the MEL Framework and Montrose's Inception Report.

2.1 Key evaluation questions & role of the baseline

This evaluation will take on a longitudinal approach aimed at assessing the impact of the project on GEC-T outcomes and therefore addresses questions around both GEC-T outcomes and project intermediate outcomes. The GEC programme outcomes to be measured are Learning, Transition and Sustainability. The evaluation of the results of the project on these outcomes will be guided by the GEC programme evaluation questions which include:

1. Was the GEC successfully designed and implemented? Was the GEC good Value for Money?
2. What impact did the GEC Funding have on the transition of marginalised girls through education stages and their learning?
3. What works to facilitate transition of marginalised girls through education stages and increase their learning?
4. How sustainable were the activities funded by the GEC and was the programme successful in leveraging additional interest and investment?

The project level evaluation questions around intermediate outcomes are aimed at demonstrating how the outcomes (Learning, Transition and Sustainability) were or were not achieved. Therefore, project level evaluation questions directly feed into programme evaluation questions.

Project level evaluation questions are aimed at collecting evidence on what worked or what did not work to realise the nature of project outcomes reported. The questions are therefore formulated bearing in mind the planned drivers of change in the outcomes as indicated in the Theory of Change, that is the five intermediate outcomes: attendance; teaching quality; self-esteem; attitude and perceptions; and economic empowerment. The project level evaluation questions are about effectiveness, impact and Value for Money (VfM) of the project on the intermediate outcomes. The project level evaluation questions are:

Project level evaluation questions

1. **To what extent did the project impact on the attendance among girls with disabilities?**
   - 1.1. *How did the project impact on attendance among girls with different impairments?*
   - *1.2. Was there any significant difference between attendance among girls and boys with disability? Why?*
   - *1.3. How did the change in attendance contribute to learning among girls and boys with different impairments?*
   - *1.4. What were the key drivers to the change in attendance?*

2. **To what extent did the project contribute to improved quality of teaching to benefit girls with disabilities?**
   - *2.1. How did the project enable teachers to become gender response in the delivery of lessons?*
   - *2.2. How did the project enable teachers to apply inclusive education methodologies to benefit girls with different disabilities?*
   - *2.3. Did a change in teaching quality affect learning outcomes among girls with disability?*
   - *2.4. What contributed to the change in quality of teaching?*

3. **To what extent did the project impact on the self-esteem of disabled girls as measured by the project self-esteem index?**
   - *3.1. Did the project affect the self-esteem for girls with different impairments differently?*
   - *3.2. How did the change in self-esteem affect the learning and transition among girls with different impairments?*
   - *3.3. How did the change in disabled girls'` self-esteem affect their aspirations?*
   - *3.4. What contributed to the change in self-esteem among the girls with disabilities?*

4. **To what extent did the project impact on the way community and other stakeholders view disability, gender, inclusive education?**
   - *4.1. Has the project contributed to a change in the way the community views education of boys and girls with different impairments?*
   - *4.2. What are some of the school and community initiatives geared towards support of education of girls and boys with disabilities?*
   - *4.3. What project aspects have been instrumental in causing change in the community and stakeholders' perceptions towards education of disabled children?*
   - *4.4. How has the project contributed in the change in policy and practice in the education of disabled children at district and National level?*
   - *4.5. How has the project contributed to the expansion of networks, synergies and leverage aimed at improving and sustaining the education of children with disabilities?*
   - *4.6. How has the project contributed to co-existence and peer support among children with and without disabilities at school?*
   - *4.7. Are children (boys and girls) with different impairments becoming more secure in the community and at school as a result of the project?*

5. **To what extent did the project contribute to economic and social resilience of families of girls and boys with disabilities to support the sustainability of education interventions?**
   - *5.1. Has the project contributed to a change in the family`s aspirations and investment in the education of the sons and daughters with disabilities?*
   - *5.2. Has the project contributed to a change in the economic status of the family?*
   - *5.3. How has the project contributed to peer-support among parents of boys and girls with disabilities?*
   - *5.4. Has the project contributed to responsible parenting among families of boys and girls with disabilities?*

The evaluation will comprise 4 formal evaluation points where data will be collected from a number of different sources in order to gather evidence about project outcomes (learning, transition, sustainability) and intermediate outcomes (attendance, teaching quality, self-esteem, attitudes, economic empowerment). This will allow for a longitudinal approach to the study, with evaluation points taking place as follows: 2017/18 (baseline), 2018/19 (midline 1); 2022/23 (midline 2) and 2024 (endline).

This baseline study, therefore, aims to answer the following research questions at the start of the CSU GEC-T project:

1. What is the current situation for girls with disabilities in terms of literacy and numeracy proficiency? How does this compare to girls without disabilities?
2. Are there any factors that look to positively or negatively influence outcomes of disabled girls? For example:

- What is the current **attendance and transition** rate for GWD?
- To what extent is **teaching** being carried out in a gender and disability responsive way?
- What level of **self- esteem** & career aspirations do GWDs have?
- How do **stakeholders view** GWDs and the importance of education?
- To what extent are families **economically equipped and empowered** to support their daughter's education?

Which of these factors seem to impact most on GWD and their learning outcomes?

Are there differences between girls with and without disabilities?

Are there differences between disability type?

Are there any additional barriers or factors?

3. How far do the planned strategic interventions align to the current needs of GWD? What are the barriers?
4. Are there any additional opportunities that could be leveraged by building on current strategies to improve pupil outcomes?

By answering the above questions, this baseline evaluation will measure the levels of proficiency in literacy and numeracy competencies amongst girls with and without disabilities at the start of the CSU GEC-T Programme. This will provide a baseline against which to assess the impact of the planned interventions designed to (a) reduce the inequality gap in learning outcomes between girls with disabilities and those without, and (b) improve attendance and transition rates amongst GWD.

Additionally, by gathering qualitative data, the baseline study will build on the overarching situational analysis at the system, school and community levels to ensure the planned interventions are aligned to current gaps and challenges, whilst suggesting additional opportunities for improvement.

2.2 Outcomes and Intermediate Outcomes

Following a meeting between and CSU, the project Theory of Change was revised slightly to ensure robustness in it presentation of the change the project hopes to bring about. Therefore, the project outcomes and intermediate outcomes are now defined as:

1. **Outcome 1: Learning**

   For Outcome 1, the project will seek to ***improve literacy and numeracy learning outcomes of girls with disabilities in Kampala*** by impacting on the frequency of the girls' attendance of school and the learning environment of the schools they attend. Literacy in this context will be measured by the girls' performance in the English subject while numeracy will be measured using the girls' performance in Mathematics. Although, it is a Ministry of Education and Sports policy for children in lower primary to be taught using their mother/familiar tongue as the language of instruction, the diverse nature of Kampala does not allow for any one national language to be taught in school. Therefore, the project and hence the evaluation will only consider English literacy. The intermediate outcomes linked to the Learning outcome are:

   Intermediate Outcome 1 (Attendance) which will seek to achieve the ToC through ***Improved attendance rates of girls with disabilities in project schools.*** Attendance is critical for good learning outcomes and therefore the CSU GEC-T project will support all the girls to attend at least 75% of the 60 school term days. Additionally, 20 schools shall be supported to improve accessibility and sanitary facilities with the aim of contributing to girls' retention in school.

   Intermediate Outcome 2 (Teacher Quality) which will seek to achieve the ToC through an ***increased number of teachers demonstrating inclusive teaching practices while teaching literacy and numeracy in the class room***. In the CSU-GEC project context, quality of teaching takes different forms including: ability of a teacher to demonstrate mastery of the curriculum/subject; capacity of teacher to vary teaching methods that benefit learners with different backgrounds including those with impairments; ability of a teacher to use appropriate teaching and learning materials; gender responsive pedagogy; teaching and learning environment; and above all a positive attitude to the teaching and learning process.

2. **Outcome 2: Transition**

   The project Theory of Change identifies Outcome 2 as an ***improvement in transition rates of girls with disabilities in project schools.*** Transition in GEC-T is understood as: progression into and through successive grades of formal (primary, secondary, tertiary institutions) and non-formal education (designed to open up formal structures to excluded groups), vocational training (courses designed to equip individuals with applied and practical skills that aim to prepare individuals for success in employment or other aspects of economic life here referred to as Technical Vocational Education and Training (TVET)), or into safe, fairly paid employment or self-employment. In the context of CSU-GEC project, transition will therefore take 2 forms: transition across the different education and training levels; and transition within the same education level (from grade to grade). Therefore, the intermediate outcomes to be achieved in line with the successful transition of GWD supported by the project include:

   Intermediate Outcome 3 (Self-esteem) will seek to create an environment ***where girls with disabilities have improved self-esteem & agency to make informed decisions about all aspects of their lives***. Self-esteem therefore has a considerable bearing on a girl's success be it education, or any social and economic activity. For extremely marginalised girls such as disabled girls who are targeted by the CSU-GEC-T project, addressing self-esteem should have a seriously positive impact on learning and transition outcomes for this category of girls.

Intermediate Outcome 4 (Economic Empowerment) will aim to ensure that ***Families use their improved income to financially support the education of their girls with disabilities*.** In this context economic empowerment will be focused on strengthening the household income base with the purpose of having parents who can ably meet the education costs of their disabled daughters. Although the project is providing bursaries to disabled girls, there is merit in having interventions aimed at preparing girls' households to pay for their daughters` education at a future date ie. beyond the lifetime of the project.

3. **Outcome 4 (Sustainability)** will look at ***improving the supportive environment for learning and transition of girls with disabilities.*** For GEC-T sustainability is defined as whether improvement in learning and transition can be sustained for future generation of girls in the project community, school and education system at large. It is anticipated that as the project continues to be implemented, all three levels (school, community and education system) will undergo a gradual change in perspectives regarding education of disabled girls. The key drivers to sustainable learning and transition outcomes and therefore the key measure of the path to sustainability will focus on the changes in the five project intermediate outcomes.

Intermediate Outcome 5 (Attitudes and Perception) will seek to ensure that an ***inclusive environment (school, household, policy, system) is maintained to support the needs of girls with disabilities.*** In the CSU GEC context, attitude and perception is viewed as one of the greatest barriers to education attainment among GWDs. Improving attitude and perception at family, community, school and policy level is a key factor in promoting education for disabled girls. In this regard, attitude and perception is viewed as an enabler to learning, transition and sustainability.

Despite the fact that sustainability is built in all the five project intermediate outcomes, two specific intermediate outcomes; attitude and perception and economic empowerment are deemed to have greater impact on sustainability in this context.

The indicators to the above-mentioned outcomes and intermediary outcomes include:

1. **Learning**

- Number of disabled girls supported by GEC (disaggregated by impairment type) demonstrating SD 0.25 literacy outcome improvements at each evaluation point.
- Number of disabled girls supported by GEC (disaggregated by impairment type) demonstrating SD 0.25 numeracy outcome improvements at each evaluation point.

1.1. Attendance

- Percentage improvement in disabled girls' attendance in schools (disaggregated by impairment type) throughout the life of the project
- Stakeholders` views on the extent to which project interventions have contributed to school attendance of GWDs on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)

1.2. Teacher Quality

- Percentage (and number) of teachers (disaggregated by sex) displaying skills in teaching literacy/numeracy in a gender responsive and inclusive manner
- Percentage (and number) of teachers (disaggregated by sex) who have a positive attitude towards girls with disabilities.
- The extent to which teaching process in the project schools meets the learning needs of pupils on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)

2. **Transition**

- Number of disabled girls (disaggregated by impairment type) who have transitioned through key stages of education, training or employment (primary to lower secondary, lower secondary to upper secondary, training or employment)

2.1. Self-esteem

- Percentage of disabled girls (disaggregated by impairment type) who report increased self-esteem
- Percentage of disabled girls (disaggregated by impairment type) who report increased self-confidence
- Percentage number of disabled girls who demonstrate increased life skills
- Stakeholders` perceptions on the extent to which the project`s interventions have contributed to the change in the voice, mobility and influence of GWDs on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)

2.2. Economic Empowerment

- Proportion of parents of disabled girls (disaggregated by impairment) with improved income
- Percentage number of parents who prioritise investment in girls' education more highly against competing priorities (such as health, home improvements, food, other children's education etc).
- Percentage number of parents who currently invest in some way in their daughter's education (books/ clothes etc)
- The extent to which a change in household income influences the decision on whether to educate of CWDs on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)

3. Sustainability

- ***Community:*** The extent to which the financial and other resources mobilised by the parents are benefiting the education of girls and boys with disabilities.
- ***Community:*** Extent of community self-help initiatives geared towards rights of children including right to education.
- ***School:*** Extent to which schools demonstrate inclusiveness to attract and retain children with different education needs (e.g. infrastructures, teaching and learning materials, Special Needs Education (SNE) human resource, financial plans).
- ***System:*** Level of disability mainstreaming among stakeholders (Kampala Capital City Authority (KCCA), Ministry of Gender, Labour and Social Development (MGLSD), and MoES).

3.1. Inclusive Environment

- Percentage number of key stakeholders displaying a positive change in attitudes and perceptions towards GWDs (disaggregated by system level, school level, community level)
- Reduction in the number of incidents reporting violation of rights of GWDs.
- The extent to which the attitudes and perceptions of stakeholders have contributed to the education of GWDs on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)

table 2 below illustrates the project outcomes and intermediate outcomes based on the recently revised Theory of Change following a workshop between Montrose and CSU in January 2018. The table highlights the level of measurement, tools for data collection to be used and the rationale for the approach used to measure the outcome and the frequency of data collection. The table outlines the three project outcomes and 5 project intermediate outcomes.

TABLE 2: OUTCOMES FOR MEASUREMENTS

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection, *e.g. Household (HH) survey, school-based survey, Focus Group Discussions (FGDs) etc.*	Rationale *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*
Improved performance of GWDs in literacy specific learning **outcomes**	*School*	*Early Grade Reading Assessments (EGRA) and Secondary Grade Reading Assessments (SeGRA)*	Fund Manager (FM) recommended. Test is able to demonstrate progressions from letters to words, to comprehension; timed reading and more complex reading to accommodate fluency which are proxies for learning literacy.	*per evaluation point*
Improved performance of GWDs in numeracy specific learning **outcomes**	*School*	*Early Grade Maths Assessments (EGMA) and Secondary Grade Maths Assessments (SeGMA)*	FM recommended. Test is able to demonstrate progression from numbers, to addition/subtraction and multiplication/division; linkage to curriculum to accommodate mastery which are proxies for learning literacy.	*per evaluation point*
Improved transition **rates of girls with disabilities**	Household/school	HH survey/Head Teacher (HT) and Teacher Interview	Transition is defined as successful progression in formal and non-formal levels of education or movement to a TVET or paid work. Most girls supported by the project at currently enrolled in formal education and are expected to progress through	*per evaluation point*

			school. The custodians of this information are the school that the GWD attends.	
Improved supportive environment for a sustainable learning and transition of GWDs (Sustainability**)**	Household/school	HH survey/HT and Teacher Interview/ Pupil Context Interview	Sustainability to refer to whether improvement in learning and transition can be sustained for future generation of girls in the project community, school and education system at large. This is best measured through actions brought on by a change in attitudes and perceptions of the people in the environment where the GWDs are found	*per evaluation point*
Intermediate outcome 1: ***Improved*** *attendance* ***rates of girls with disabilities in project schools***	School	Pupil Context Interview, Household/caregiver survey	The project is interested in the GWDs continued presence in school on the assumption that increased attendance will lead to improved learning	*per term*
Intermediate outcome 2: **Increased number of teachers demonstrating** inclusive teaching practices **while teaching literacy and numeracy in class (**Teaching quality**)**	School	*Classroom observations, Teacher Interviews, FGDs, Key Informant Interviews (KII)*	The quality of teaching offered to a GWD is best observed in the classroom as the lesson is being taught. These observations look for the ability of a teacher to demonstrate the capacity to vary teaching methods that benefit learners with different backgrounds including those with impairments in a gender responsive manner.	*per evaluation point*
Intermediate outcome 3: **Girls with disabilities have improved** self- esteem & agency **to make informed decisions about all aspects of their lives** *(Self-Esteem)*	School	Pupil context interview and the Household/caregiver survey, FGD	Self-esteem is considered to have a bearing on a girl‘s success be it in education, or any social and economic aspect based on girls‘ attitude toward themselves. Therefore, addressing self- esteem should have a positive impact on learning and transition outcomes for GWDs as their aspirations for the future will grow ensuring sustainability of the impact of the project after its lifetime.	*per evaluation point*
Intermediate outcome 4: **Families use their improved income to financially support**	School	Household/caregiver survey	Economic empowerment in this context focuses on strengthening the household income base with the	*per evaluation point*

the education of their girls with disabilities (*Economic Empowerment)*			purpose of having parents who can ably meet the education costs of their disabled daughters.	
Intermediate outcome 5: **Inclusive environment (school, household, policy, system) maintained to support the needs of girls with disabilities** (Governance, environment (attitudes & perception))	School, community	Household/caregiver survey, KIIs	Attitude and perception is an enabler to learning, transition and sustainability. A positive attitude from the community and key stakeholders will greatly contribute to sustainability of project results which has a lasting impact on not only the current cohort of disabled girls but also at broader level considering education of disabled children.	*per evaluation point*

Methodology for measuring the sustainability of the Outcomes and Intermediate Outcomes

During the GEC-T time frame, the CSU GEC-T project has to provide evidence on the path to sustaining the improvements in learning and transition brought about by the project at the different levels: community; school; and system. This evidence will rotate around the key drivers to sustainable learning and transition outcomes and therefore the key measure of the path to sustainability will focus on the changes in the five project intermediate outcomes. A sustainability scorecard, developed by the FM, has been proposed as a guide against which progress in sustainability should be measured. According to the scorecard, sustainability will take four stages: latent; emerging; becoming established; and established.

The latent stage is the stage where knowledge and change in attitude is developed among communities, school and system. At emerging stage, the evaluator will seek information that demonstrates changes in behaviour at community, school and system level. At this stage, it is not only having the knowledge or demonstrating a change in attitude but beginning to put into practice the acquired knowledge and attitude, for example a few schools beginning to take on the CSU-GEC project model on school adaptation for disabled children. The 'becoming established stage' is a stage of critical mass behavioural change where a larger part of community, school and stakeholders become convinced of benefits and have independent capacity to deliver changed practice. Established stage is a stage where changes are institutionalised at community, school and system level.

Sustainability will be measured quantitatively and qualitatively. Quantitatively, sustainability will be measured against the sustainability scorecard developed with ratings 1-4 and focusing on the expected features of each sustainability stage for each of the levels (community, school and system). Qualitative measures for sustainability will include use of FGDs, KIIs, and will aim at exploring the drivers for sustainability.

TABLE 3: SUSTAINABILITY OUTCOME FOR MEASUREMENT

Sustainability Level	Where will measurement take place?	What source of measurement/verification will you use?	Rationale – clarify how you will use your qualitative analysis to support your chosen indicators.	Frequency of data collection
Community Indicator 1: The extent to which the financial and other resources mobilised by the parents are benefiting the education of girls and boys with disabilities.	Household	Household/caregiver survey, KII and FGDs	Qualitative analysis will look at the extent to which girl's family participate in school activities.	Baseline, 1st midline, 2nd midline and endline
Community Indicator 2: Extent of community self-help initiatives (community pressure groups on girl education, collaboration groups between schools and community members, parent peer to peer and advocacy groups, NGOs and CBOs) geared towards rights of children including right to education.	Household/ community	Household/caregiver survey, KII and FGDs	Qualitative analysis will look at the available initiatives and practices among family and community members to contribute to disabled girls staying in school.	Baseline, 1st midline, 2nd midline and endline

School Indicator 1: Extent to which schools demonstrate inclusiveness to attract and retain children with different education needs (e.g. infrastructures, teaching and learning materials, SNE human resource, financial plans).	School	Head Teacher / Teacher interviews, pupil context interviews, KIIs, FGDs	Qualitative analysis will include looking at how the changes in school policies and practices have been brought about and the nature of the changes.	Baseline, 1st midline, 2nd midline and endline
System Indicator 1: Level of disability mainstreaming among stakeholders (KCCA, MGLSD, and MOES) demonstrated through increase allocation of resources for SNE and in the increase in disability sensitive policies and programming	System	KIIs, Case studies	Qualitative analysis will look at the extent to which government departments are institutionalising education of disabled girls for instance disabled girls benefiting from government bursaries at institutions of higher learning.	Baseline, 1st midline, 2nd midline and endline

2.3 Evaluation methodology

2.3.1. Evaluation design

The evaluation of project outcomes will employ a difference in differences methodology to estimate the relationship between project interventions and improvements in learning outcomes and retention/transition rates for participating disabled girls. The nature of the population of participants in the programme (disabled girls) presented challenges in developing a robust methodology incorporating an appropriate treatment/non-treatment control group for applying a DID methodology. Prevalence rates amongst the school population in Kampala (the site of the project) were low and as such the CSU project participants were found to be dispersed across more than 391 primary and secondary schools and 10 vocational schools.

With the low prevalence of disability, identifying a sufficiently large population of disabled girls who will not receive project support as a comparison group was neither logistically nor financially feasible. For this reason, the evaluation opted to compare changes in learning outcomes over the project period between a sample of disabled girls (participants) and non-disabled girls (control) drawn from the same universe of participating project schools. While some planned interventions may indirectly benefit non-disabled girls, the project is intended to improve school participation and learning outcomes for disabled girls. Changes in the disabled/non-disabled learning gap over time would provide evidence that project interventions were effective in promoting improved outcomes for disabled girls rather than improving overall results.

The evaluation used a mixed methods approach to gather data around learning, transition and sustainability outcomes within the context of complex socio-economic and environmental factors. Qualitative data was used to triangulate findings from quantitative data and add breadth to the outcomes of the deep-dive qualitative analysis ensuring the maximum breadth and depth possible given the parameters of the research study. Additional data was collected from key stakeholders across the community, school and system levels.

Therefore, the study used a gender and disability sensitive mixed methods approach. A sample of girls with disabilities were determined by drawing a random sample from the overall cohort based on a statistical

power of 0.8, a 0.05 level of significance and a minimal detectable effect size of 0.25 SD. Additional sampling protocols were put in place to limit the number of schools, disability types and severity. This facilitated the logistics of data collection whilst ensuring findings are generalizable to the wider population. A control sample of girls without disabilities was drawn from within the same class as the sampled girls with disabilities. This was aimed at enabling Montrose to determine the extent to which the project has been successful in improving the inequality gap in learning and transition outcomes between girls with and without disabilities. Girls will be tracked longitudinally across the 7-year life cycle of the project. Data underpinning the various outcomes and intermediate outcomes (see Theory of Change) will be collected via a number of different tools.

Early and Secondary Grade Reading and Maths Assessments (EGRA/EGMA/SeGRA/SeGMA) were used to measure learning outcomes. Household surveys provided data on transition outcomes. Additional interviews with pupils, teachers, caregivers and education authorities, coupled with lesson observations and school checklists, provided key multilevel data around attendance, teaching quality, girls' self- esteem, attitudes and socio-economic circumstances of the girls' families. When matched across to learning outcomes data over time, this is expected to provide rich insight into the factors influencing learning and transition outcomes for GWDs, the impact of programme interventions and additional barriers or opportunities for improvement. Value for Money (VfM) analysis will be conducted at midline and endline via a 'matrix of ingredients' approach to be outlined in subsequent inception reports for the midline and endline evaluations.

The target beneficiary groups were identified to be the disabled girls receiving support from CSU. Indirect beneficiaries were identified as teachers and head teachers in project supported schools, parents/guardians of the GWDs supported by the project including caregivers, Ministry of Education/KCCA officials, boys supported by CSU.

2.3.2. Study cohort

Following the series of randomised sampling calculations aimed at determining the sample size of the learning cohort and transition cohort, it was decided that the same cohort of girls shall be followed for both learning and transition. The parameters proposed by the FM resulted in a sample size of 517 pupils for this cohort. Therefore, the same sample was used for learning and transition so linking these together. Every project girl that was sampled (treatment) was matched with a non-project (control) girl.

The sample size of the other target beneficiaries ie. teacher, caregiver in addition to the household were determined by the sample size of the learning cohort. This was to enable effective cross examination around issues such as school and learning environment, socio-economic conditions, disability type and severity, attendance and transition, attitudes and perceptions against learning outcomes.

In practical terms, this meant that for every girl sampled, the aim was to conduct interviews with her teacher, head teacher, caregiver (where applicable) and household head. In addition, a selection of key personnel from the GWD regional education authority were interviewed. Three focus group discussions (2 for primary and 1 for secondary) were held in the girls' communities to ascertain community attitudes and perceptions of GWD. In total 59 schools were to be visited as part of this evaluation to collect the following data.
In summary:

- 517 participants were expected to take part in the pupil interview and household survey[33]
- 258 caregivers of the disabled girls were to take part in the caregiver survey
- 50 Head Teachers were to be interviewed
- 80 participants were to be involved in the teacher interview
- 80 Lessons were to be observed
- 10 KIIs were to take place with key stakeholders from the Education Authorities

[33] It was found that caregivers for GWDs were at times the same as their household heads. Therefore, only one interview had to be done.

2.3.3. Benchmarking

Benchmarking for learning and transition The CSU programme delivery cycle is over 7 years so some of the supported beneficiaries could transition into upper secondary, therefore it is important to have learning outcome benchmarks or targets against which each supported learner would be expected to have attained by the end of the programme. As there are no upper secondary students in the current sample, additional data was required to be collected at baseline to ensure all grades were measured. It is against this initial test that targets or benchmarks for measuring progress with respect to learning outcomes will be set for the rest of the programme.

From the sample of 59 schools, only 8 secondary schools were eligible for benchmarking. It was estimated that a total of 100 benchmark pupils would be sufficient for this analysis. For this reason, a total of 12 girls without disabilities were drawn from each of the classes S4, S5 and S6. Given that the DID model for the evaluation of this programme is focused on reducing the inequalities between GWD and girls without disabilities with the assumption that by the end of the programme GWDs should be at the same level as girls without disabilities, so only girls without disabilities were chosen to be part of the benchmarking process. Their participation was optional as we were requesting that they give up half a day of schooling with no additional benefits to their own learning: on this basis a total of 97 learners were assessed. The table shows the transition paths that are expected of the sample population throughout the life of the project.

Baseline 2018	Midline 1 2019	Midline 2 2021	Endline 2024
Project Grades			
P3	P4	P6	S2
P4	P5	P7	S3
P5	P6	S1	S4
P6	P7	S2	S5
P7	S1	S3	S6
S1	S2	S4	Working, vocational school, university
S2	S3	S5	Working, vocational school, university
S3	S4	S6	Working, vocational school, university
S4	S5	Working, vocational school, university	Working, vocational school, university
Benchmark Grades			
P3	N/A (no learners at P3 level after baseline)	N/A (no learners at P3 level after baseline)	N/A (no learners at P3 level after baseline)
P4	P3	P5	P7
P5	P4	P6	S2
P6	P5	P7	S3
P7	P6	S1	S4
S1	P7	S2	S5
S2	S1	S3	S6
S3	S2	S4	S6+ (learner has graduated)
S4	S3	S5	S6+ (learner has graduated)
S5	S4	S6	S6+ (learner has graduated)
S6	S6+ (learner has graduated)	S6+ (learner has graduated)	S6+ (learner has graduated)

2.4 Baseline data collection process

This section outlines the process employed during the collection of baseline data (both quantitative and qualitative).

2.4.1. Pre-data collection

Prior to any data collection, a pilot of the baseline tools was conducted to ensure the appropriateness of the tools with respect to both the adaptation of the tools for each disability type and the suitability of subtasks chosen for each grade. The analysis of the pilot included identification of any potential floor or ceiling effects. Tools were amended and finalised based upon findings from the pilot study and the decision on which subtasks would be taken by each grade was agreed with CSU and the FM.

2.4.2.1 Sampling framework for learning and transition

Quantitative sampling frame - Learning

The sampling frame for the baseline data collection began with the total cohort comprising of 2,060 girls and 586 boys in 391 primary and secondary schools within Kampala. A sample size sufficient to detect differences in group means in learning outcomes (literacy and numeracy) was estimated using the assumption of random selection at the individual level (participants and non-participants). As per guidance provided by the GEC-T, the sample size calculation was based on a statistical power of 0.8, a 0.05 level of significance and a minimal detectable effect size of 0.25 SD. The evaluators used equal participant/non-participant groups in the calculation.

The suggested parameters result in a sample size of 398 individuals. To account for attrition, the initial sample was increased by 30 percent; 517 individuals split between GWD and girls without disability as shown in Figure 2. It is worth noting that this is far less than the original sample which was outlined in the CSU MEL guidelines. This is because the design of the samples are different and having included a matched control group, the statistical requirements for the sample size to be significant, changes. Similarly randomising without prior stratification also reduces the need for such a large sample whilst ensuring significance.

Sample size calculation: literacy/numeracy

t tests - Means: Difference between two independent means (two groups)

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Effect size d	=	0.25
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1
Output:	Noncentrality parameter δ	=	2.49
	Critical t	=	1.649
	Df	=	396
	Sample size group 1	=	199
	Sample size group 2	=	199
	Total sample size	=	398

FIGURE 2: SAMPLE SIZE CALCULATIONS FOR LEARNING COHORT

To ensure true randomisation, the cohort was not stratified by exclusion criteria prior to the sampling but rather replacement methodologies were employed following the randomisation process to ensure the final sample was optimal both logistically and technically. The exclusion criteria used for replacement and substitutions is as follows:

- Any learner who was from one of the six pilot schools and had already been exposed to the assessment tools to be used for the baseline survey was replaced
- Any boys were replaced[34]
- Learners whose disability was considered to be severe were replaced[35]

[34] It was discussed and agreed that as the cohort of boys was so small compared to the girls, to have a significant enough number of boys to make comparisons, we would need to sample almost every boy and this is not practical. Therefore, boys were excluded from the quantitative data collection but were included in the qualitative data collection and the findings from the boys were used as a case study.

[35] At the start of the evaluation, it was decided that assessments would not be conducted on severely impaired children due to time constraints related to the development of appropriately adapted tools and the inability of many of the more severely disabled to participate in most subtasks such as letter sounds, letter names, and for the profoundly deaf, listening comprehension.

- Learners being educated through disability specific schools, such as schools for the blind, were replaced as a control could not be found in those institutions
- Learners at TVET institutions were replaced as the EGRA/EGMA/SeGRA/SeGMA tools were not adapted for vocational learning where English and Maths are not taught
- Learners from four schools had to be replaced as the distance to these schools was too far outside of Kampala to be included
- Learners in P2 were replaced as it had been decided they were too young to participate in the EGRA and EGMA which was of a P3 standard
- Where there were less than 5 learners from one school these were replaced for practical and logistical reasons given the limited timeframe for data collection and the spread of schools across Kampala city. The only exception to this rule was with Secondary Schools as so few have 5 treatment learners in each school, this rule was dropped to a minimum of 3 learners for secondary schools.

To achieve this, several randomised sampling runs were made in R software and after every run, girls from schools meeting the stated criteria were included in the sample. The sampled girls selected, and the respective schools were then excluded from the next sample run. For instance, in the first run, only 122 girls coming from 19 schools met the sampling rule. The 122 girls and their respective 19 schools were then excluded in the next sample run. This process was repeated five times to ensure a large enough sample was identified. The final sampling frame included 315 GWDs in 59 schools which was more than was initially required. However, given the very high drop-out rates experienced in the pilot study[36], it was decided to continue with the 315 sample learners (630 learners including control) to ensure enumerators were able to achieve a total sample of 259 treatment learners (518 total learners including control).

Given that this was a true randomised sampling process, the sample was not disaggregated by disability types as stratification by disability type prior to randomisation would mean a higher proportion of samples was required to ensure generalisability. In this instance it was decided that the most statistically significant and generalisable results would be to assume the true randomisation process would result in a roughly proportional sample with respect to disability type.

Whilst the sample has allowed for a generous attrition rate already, there are additional mechanisms in place to ensure that over the 7-year programme, the number of participants in the study does not become so low that it is no longer statistically significant. For example, CSU has built into its programme the mechanism whereby should a child leave the CSU programme, another CWD will be supported through the GEC-T programme and where possible this new CWD will be replaced like-for-like. In this instance, Montrose will use the new CWD in the place of the previous participant. The more concerning challenge with the length of the programme is with those CWD who either (i) leave mainstream education for vocational training institutes where English and maths are not or; (ii) reach S5-S6 where subjects are selected and maths and English are no longer mandatory – in this instance EGRA/EGMA/SeGRA/SeGMA tests become a defunct mechanism to measure learning.

Selection of Control Group

As part of the sampling methodology, enumerator teams were required to randomly sample an equal number of 'matched' girls without disabilities from the same class as each of the sampled GWDs. Therefore, the random sampling of children without disabilities (control) was determined by the number of GWDs to be sampled from each class. The procedure for sampling is outlined below:

- The enumerators briefed the class on the study and why/how they may be selecting some learners to participate.
- They were instructed to enter into each class where a CWD was found to sample an equal number

[36] High rates of drop-out experienced during the pilot study were as a result of learners not scoring as disabled on the Washington Group Questions, learners not willing to participate in the study, learners not being in the same grade as expressed in the CSU database, learners not being in the same schools as expressed in the CSU database. To alleviate these issues, Montrose worked with CSU to conduct a verification exercise on all pupils', teachers' and headteachers', household heads' and caregivers' information in the treatment arm.

of children without disabilities.

- They then asked the control learners (e.g. non-disabled) to stand and walk out of the classroom, and line up by height from tallest to shortest. If a class had two streams, all of the girls were to exit the class and line up by height irrespective of the stream to which they belonged
- The enumerators counted and noted down the number of girls in the line once it was formed
- They computed the number of girls to sample from the class by taking the total target[37] and dividing it by the number of pupils in the line to get the sampling interval. For example, if the total target was to find 3 control learners and the line contained 18 girls without disabilities, then the sampling interval would be 6.
- The enumerators select the first girl at the front of the queue (the tallest girl) as the 1st member of the control sample, then every 6th girl thereafter that should also be selected and included in the control sample, so girls numbered 6, and 12 etc., until they had selected 3 girls.
- These learners form part of the control.
- The learners selected were then given the option to participate and if they chose not to, additional control learners would be selected using the process outlined above.
- Learner's information (date of birth, names) was then recorded for follow up at midline and endline evaluation points.

Where there was just one control child to be sampled, a slightly different process was used to avoid disrupting all the learners in the class and the CWD was first asked in which month they were born, and any non-disabled learners born in the same month were selected to stand outside. If there was more than 1 child, they were asked to pick a number out the hat and the learner who picked '1' would be sampled.

The method for selecting the control group was therefore as randomised and matched to the CWD as possible given that Montrose did not have access to full class lists prior to entering schools and so a method for sampling had to be identified which could be carried out by enumerators on the day of data collection.

Quantitative sampling frame - Transition

While the proposed measures of literacy and numeracy are continuous variables (test scores), transition rates can be thought of as proportions; the percent of children successfully transitioning to the next level/grade of education. A sample size sufficient to robustly estimate differences in the transition rates of GWDs versus girls without disabilities was calculated using the assumptions of a 20 percent difference in the transition rates, a statistical power of 0.8 and a confidence interval of 0.05. The parameters yield a sample size of 154 – evenly divided between GWDs and girls without disabilities. As the required transition sample is significantly smaller than the learning outcomes sample and so the evaluators will utilise the learning outcomes sample to assess the impact of the project on transition rates for GWDs.

Sample size calculation: transition

z tests - Proportions: Difference between two independent proportions

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Proportion p2	=	0.6
	Proportion p1	=	0.4
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1
Output:	Critical z	=	1.645
	Sample size group 1	=	77
	Sample size group 2	=	77

FIGURE 3: SAMPLE SIZE CALCULATIONS FOR TRANSITION COHORT

Qualitative sampling frame

For the Key Informant Interviews (KIIs), 10 Education Authority officials were sampled by applying purposive sampling techniques. These participants were purposively selected from institutions with a

[37] The total target is equal to the number of children with disabilities in the class

mandate to deliver on inclusive education. These include; Ministry of Education and Sports (MoES), National Education Standards (NES), Kyambogo University, National Curriculum Development Centre (NCDC), Uganda National Examination Board (UNEB), Kampala City Council Authority (KCCA), select Head Teachers, and members of School Management Committees (SMCs). Individuals selected were recommended by the most senior person in each of the institutions mention above on account of their being the senior specialist on disabilities within the institution. There is a finite number of people working within the ministries and civil services who are focussed on CWD and as a result, there was no opportunity to randomly select participants.

All interviews were done based on participant availability and willingness to take part in the study. Similarly, purposive sampling was used to select 10 participants for each of the 4 Focus Group Discussions (FGDs) which was comprised of:

- GWDs at primary school who were part of the quantitative sample
- GWDs at secondary school who were part of the quantitative sample
- Two groups of boys with disabilities of mixed ages mainly attending primary school.

These participants were selected based on proximity of their school to the city centre, which was used as proxy to gauge the distance they had to travel to get to the discussion site. This assumption is based upon the premise that most parents are not able to afford transportation for their children to travel long distances to school each day and so they prefer to place their children in schools in close proximity to their homes. These discussions were to be held during the holidays so the children's proximity to the discussion site was paramount in ensuring parents were not deterred from bringing their daughters to the FGD. Their participation was voluntary, and they were able to opt out if they preferred. In these cases, replacements were made. Please see annex 10 for the evaluation sampling frame.

TABLE 4: EXPECTED VERSUS ACTUAL NUMBER OF PARTICIPANTS SAMPLED

Tool	Estimated number of participants as per the Inception Report	Actual number of participants	Percentage representation
EGRA/EGMA	517	538	2.9% more than estimated[38]
SeGRA/SeGMA	113	438	387% more than estimated[39]
SeGRA/SeGMA (for benchmarking S4-S6)	100	93	7% less than estimated[40]
Pupil Interview	517	538	2.9% more than estimated[41]

[38] This difference was as a result of enumerators having a sample frame of 315 treatment (630 total) learners from which to sample and some learners being ineligible as a result of not scoring as disabled on the Washington Group Questions. Alternatively, other learners were not being present on the day of data collection or opted out of the process and therefore out of a total sampling frame of 630, 538 learners were sampled which was above our target of 517.

[39] This vast difference is as a result of changes made to the way in which SeGRA and SeGMA were administered which was decided after the Inception Report was approved following findings from the pilot study. Initially it was thought only learners in secondary school would be taking the SeGRA and SeGMA tests and that as learner's transition into secondary the number of learners taking these tests increases. However, once it was decided each learner should always take the same test throughout the seven-year programme, the number of learners taking at least one subtask of SeGRA/SeGMA increased.

[40] Seven of the chosen learners opted out of the process and wanted to remain in class hence the difference.

[41] The reasons for this difference are the same as for the EGRA/EGMA tests

Household Survey	517	459	11.2% less than estimated[42]
Caregiver Interview	258 (for GWD only)	235	8.9% less than estimated[43]
Teacher Interview	80	133	66% more than estimated[44]
Head Teacher Interview	50	56	12% more than estimated[45]
Lesson Observation	80	119	49% more than estimated[46]
Education Authorities	10	14	40% more than estimated[47]

2.4.2.2 Research tools

Montrose developed and adapted a suite of research tools for the purposes of this evaluation. The research tools included:

- **EGRA and EGMA tools**: these were adapted both for the Ugandan context/curriculum and for the key disability types – visually impaired, hearing impaired, physically impaired and intellectually impaired. For this study, the EGRA test contained letter sound identification subtask, non-word reading subtask, oral passage reading subtask, reading comprehension subtask and listening comprehension subtask while the EGMA test contained the following subtasks: number identification, number discrimination, missing numbers, addition, subtraction, and number/word problems. These were administered by enumerators using electronic tablets
- **SeGRA and SeGMA tools**: these were first developed for the Ugandan context and curriculum, then adapted for the key disability types - visually impaired, hearing impaired, physically impaired and intellectually impaired. The subtasks contained in the SeGRA test included reading comprehension 1, reading comprehension 2 and a writing assessment. Similarly, SeGMA contained the subtasks multiplication and division; equations, and charts, data and word problems. Two versions of the SeGRA and SeGMA were developed, one with open-ended questions and one with majority closed questions. Both were piloted to determine which version to use. Based on analysis from the pilot study, it was decided that the majority closed questions version was the most suitable for the target beneficiaries. These tools were administered in an exam-like setting with all students in one room writing their responses individually on paper.
- **Pupil Interview**: this was based upon the standard EGRA/EGMA pupil context interview but with additional questions on life skills and self-esteem as recommended by the FM and adapted by Montrose.
- **Teacher/Head Teacher Interview**: this was based upon the standard EGRA/EGMA questionnaire but adapted for both the Ugandan context and the specific programme
- **Lesson Observation Tool**: as with the Teacher and Head Teacher interview, this was taken from a standard EGRA/EGMA toolkit and adapted for the Ugandan school context. Montrose were hoping to also adapt this tool to include very specific Inclusive Education (IE) practises but this was not possible as the content of the training manual has yet to be shared. Once this material is available, criteria against which IE can be measured will be developed and added to subsequent evaluations.
- **Household and Caregiver Survey**: this survey was amended for the Ugandan context based upon the guidance provided by the FM

[42] Not all heads of households wanted to be interviewed and some were unable to take time off work to come to the interview
[43] Not all caregivers wanted to be interviewed and some were unable to get to the interview site due to other commitments
[44] The number of schools and classes sampled was higher in the final sampling frame than originally estimated hence 66% more teachers were interviewed
[45] There were 59 schools in the final sampling frame but only 56 head teachers could be interviewed. The remaining three were not interviewed because they were either not available or refused to participate
[46] Where possible one lesson per class (either English or Maths) where there was a sample learner was observed
[47] Letters were sent to more key stakeholders than required as it was assumed some would not be available. In the end the estimated number of KIIs was exceeded as more people were available than first anticipated.

- **Key Informant Interviews**: were developed specifically for the Ugandan context and this programme. A semi structured interview guide was used to elicit responses from participants. KII questions were tailored depending on the participant being interviewed e.g. KCCA, MoES, School Authorities.
- **Focus Group Questions**: were developed specifically for the Ugandan context and this programme. FGD questions were tailored slightly depending on whether the participants were male or female, primary or secondary learners.

All tools were first reviewed by CSU and the FM, feedback was integrated into the tools and then they were subsequently piloted in six schools with 45 GWDs and with 45 girls without disabilities who were matched by school, grade and age, wherever possible.

Overall, results of the pilot study found the items showed high internal consistency and a largely strong or moderate positive relationship between items in the subtasks. When these outcomes were present, there were no floor or ceiling effects and the results from the pilot cohorts showed that test items were relevant and appropriate for their intended grade level (e.g. early grade assessments for primary students and secondary assessments for secondary students). However, some of the subtasks on the early grade assessments administered to secondary students showed ceiling effects – not because they are not appropriate for the grade level they are intended for, but rather because they are inappropriate for an older student who has already mastered those skills. Likewise, some of the subtasks in the secondary assessments, when administered to primary students, showed evidence of floor effects – not because they are not appropriate for the grade level they are intended for, but rather because they are inappropriate for a younger student who has not yet mastered those skills.

To attain the FM's sign-off on the research tools, Montrose presented a pilot study report detailing the how the enumerators and beneficiaries found the tools. This is detailed in section 1.2 and 1.3 of the pilot study report. Following this study and the analysis of data collected, the following adaptations to the tools were recommended:

TABLE 5: POST PILOT RECOMMENDATIONS FOR TOOLS ADAPTATION

Tool	Post-Pilot Recommendations
EGMA	• Pre-testing showed that the EGMA was too long. A decision was made to reduce the length. • Remove multiplication and division subtasks. Multiplication and division tasks are a duplication as they are included within word problems. • Number identification and quantity discrimination tasks showed ceiling effects at all grade levels; consider increasing the complexity of the subtasks or drop them altogether. • Addition and subtraction subtasks have the potential to reach ceiling effects during subsequent midline and endline testing; add more complex problems with 3- and 4-digit numbers
EGRA	• Pre-testing showed that the segmentation task was inappropriate for children with intellectual disabilities (as it had no visual stimuli); it was suggested to drop this from the list of subtasks. Remove segmentation subtask. • Letter names subtask showed ceiling effects; letter sounds are a better assessment of phonics knowledge as an early reading skill. Remove letter names subtask. • Familiar word decoding subtask has the potential to reach ceiling effects during subsequent midline and endline testing; add more complex words and increasing the grid to 50 words.

	• Oral reading fluency task showed ceiling effects for secondary students, but correct correlation to the abilities of primary students; consider not administering EGRA to students already in secondary school or those in P7 at baseline (see section 2.6). •
SeGMA	• The tool took long to administer, but the learners needed the extra 15 minutes per subtask. • P7 students struggled with subtask 1 as they have not been taught the content yet; certain questions had floor effects. • Proctoring the exam helped students who were struggling to stay on task and complete the work. • Assessment must be proctored; if a student has to take both the EGMA and SeGMA, they need to be done on separate days due to tool length and fatigue. • Maintain the extra time length per subtask. • Do not change the tool but ensure that P7 students only take subtask 1.
SeGRA	• The tool was long to administer, but the learners needed the extra 15 minutes per subtask. • Two tools were piloted – an open and a closed version. Piloting showed that primary students struggled with the open-ended assessment but were able to complete the closed assessment; secondary students were able to do both in equal measure. • Proctoring the exam helped students who were struggling to stay on task and complete the work. • Maintain a closed version of the tool to administer to students in primary school; administer an open version of the tool to students in secondary school. • Assessment must be proctored; if a student has to take both the EGRA and SeGRA, they need to be done on separate days due to tool length and fatigue. • Maintain the extra time length per subtask. • Only the closed question version will be used
Teacher and Head Teacher Interview	• Pilot showed the interview tool was too long. • Suggestion to eliminate all questions related to materials and resources (as captured in the lesson observation tool and school checklist), reduce on behaviour and attitudes questions, code open ended questions using the analysis in Annex 1. • Reduce number of questions whilst maintaining key questions to complete the log-frame and track key indicators. All non-necessary questions to be removed. Code open ended responses.
Pupil Context Interview	• Pilot showed that the Pupil Context Interview is too long (between 40-90 minutes). It is also repetitive. • Suggestion to reduce the questions around disability and devices for non-disabled children, use the short version of the Washington Group, and eliminate some of the life skills, confidence and self-esteem questions, especially those that require the use of a challenging external stimuli. • Where appropriate, assist enumerators to translate certain more difficult questions into Luganda prior to the assessment to ensure key messages and questions use the same language. • Reduce number of questions whilst maintaining key questions to complete the log-frame and track key indicators. All non-necessary questions to be removed.
Lesson Observation	• Difficult to count and calculate percentages for certain time on task activities. • Difficult to know where girls with disabilities are sitting if you are in the back of the class.

	• Piloting shows that a notes tool was needed to help the assessor track classroom activities. • Add in directions for calculating percentages of time spent on tasks; they do not have to add up to 100% overall, but within each section. • Greet the class upon arrival and identify the places where girls, boys and CWD are sitting; draw this on your classroom map. • Use the notes tool for every observation.
School Checklist	• The school observation includes basic information at this point that would be useful to know about the school's facilities, infrastructure and resources. Additional information needs to be added and the tool refined to capture information on the quality of the school's provision of inclusive and gender-responsive policies, planning, pedagogy, practices and activities. • This component must be developed with CSU against the logical framework, ToC and CSU's targeted interventions and represent an 'inclusive scorecard model or approach to analysis. • This tool needs to be refined with CSU and compared to their logical framework and interventions. • An example of a gender scorecard has been included as a reference in Annex 4. Please note that this is a gender-responsive scorecard and focuses almost exclusively on gender measurements. A similar scorecard can be developed for inclusion and merged with this; it should be aligned to CSU's interventions. • This should become part of CSUs on-going monitoring of schools which will be verified annually by Montrose. It will be stand-alone and will complement the baseline, midline 1, midline 2 and endline but will be assessed more frequently. • *It is recommended that this tool is developed with CSU once they have their training manual and criteria for assessing inclusivity. It is likely that this tool will be developed, and baseline data collected in June/July 2018 (during the second semester) as it is unlikely that the updated logframe and ToC will be finalised and approved by the FM before that time.*
Household and Caregiver Interview	• Pilot showed the interview tool was too long. • Suggestion to eliminate all questions related to long Washington Group, reduce on attitudes, behaviour and skills, revise on child abuse and protection to only necessary questions, reduce on behaviour and attitudes questions, code open ended questions using the analysis – amendments can be found in Annex 3. • Where appropriate, assist enumerators to translate certain more difficult questions into Luganda prior to the assessment to ensure key messages and questions use the same language.

The analysis in the pilot study identified any potential floor and ceiling effects of administering each tool (the full report can be found in Annex 9). Consideration had to be given that this is a seven-year programme and so many of the learners will hopefully transition significantly before the endline evaluation. Therefore, the final decision as to which tests and subtasks would be administered to which grades of learners are shown in table 6 below[48]:

TABLE 6: TESTS ADMINISTERED BY GRADE

Grade	Tests Administered
P3	EGRA/EGMA
P4	EGRA/EGMA

[48] Please note it was recommended that the EGRA and EGMA subtasks not be administered to P7-S6 students but the FM insisted that at least one subtask for English and one for Mathematics be consistent throughout the grades.

P5	EGRA/EGMA and SeGRA/SeGMA subtask 1
P6	EGRA/EGMA and SeGRA/SeGMA subtask 1
P7	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S1	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S2	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S3	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S4	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S5	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA
S6	EGRA (ORF and RC subtasks), EGMA (WP subtask) and SeGRA/SeGMA

Post baseline study
No additional amendments to the learning assessment tools were required as the tools had already been modified following findings from the pilot study. However, now that the baseline tools have been found to work and require no further amendments, tools for the two midline and endline surveys can be developed. These versions of the learning assessment tools shall be piloted later this year to ensure equal calibration across all versions.

2.4.2.3 Enumerator selection and training

Montrose recruited and trained a team of 28 enumerators experienced in administration of EGRA and EGMA tests with students and vulnerable children. Prior to the pilot study all enumerators attended a 5-day training course between 26th to 30th February 2018 of which the objectives were to train enumerators to:

- Understand and be able to fulfil the role of the assessor in the context in which they will be working
- Be fully conversant with each of the sub-tasks of the EGRA, EGMA, SeGRA, SeGMA assessments and with using an electronic tablet for data collection
- Be fully conversant with corresponding disability adaptations and adaptation manuals
- Be able to conduct the learning assessments with girls with disabilities so as to encourage their best performance, adhering at all times to the child protection policy
- Be adept at checking and capturing data electronically using the Tangerine software, at initial cleaning of data and at transmitting this data daily
- Be confident and proficient in administering lesson observations, school management assessments, household and caregiver surveys and in making reliable rating judgements.

A refresher training session was also held on the 3rd April 2018 to prepare the enumerators for the baseline data collection commencing on the 4th April 2018. As part of the initial training, an observation/evaluation checklist (with an inter-rater reliability (IRR)[49] scoring system) was used to identify the best performing enumerators and these became the team leaders.

An additional team of 8 disability experts were selected and they also took part in the enumerator training. Their role was to provide ongoing support to teams to ensure they fully understood and were appropriately adapting the administration of the tools to each learners' individual disability requirements. They also participated in household and caregiver data collection in case family members of the CWD also required support.

2.4.2. Data collection

Montrose deployed the 28 trained enumerators and 5 disability experts to 51 primary and 8 secondary schools across Kampala in teams of four to undertake the EGRA, EGMA, SeGRA and SeGMA learning assessments, pupil, teacher, caregiver and household interviews and classroom observations. Written

[49] The IRR measures the degree to which different assessors agree in their scoring of the same observation. IRR is used during the training process to improve the performance of the assessors before they go to the field. It was used to help select the best-performing assessors in a fair and transparent manner.

permission was obtained from KCCA permitting the team of enumerators to access the schools over the three-week period. Enumerators were divided by assessment type and task. In each team there was a senior enumerator (Team Leader) who was responsible for undertaking the classroom observations and interviews, as well as for supervising overall data collection. There were 2 other enumerators who conducted the learning assessments and a disability expert was available throughout to provide ongoing support to the team and to ensure the individual needs of the child with disabilities were catered for during the learning assessments. Due to unavoidable circumstances, 3 disability experts were not able to complete the exercise, so some teams went to the field without a disability expert. To mitigate any negative effects of the absence of a disability expert, Montrose ensured that the teams that lacked the expert had excellent team leaders with strong enumerators who had experience working with CWDs already. All GWDs in the treatment arm of the study were initially asked the disability criteria set of questions to ensure enumerators were able to determine the appropriate adaptions to be applied for the child to successfully complete the assessment.

The quantitative data collection exercise of the baseline study took place between the 4th and 20th April 2018. This exercise was conducted in 2 phases over the three-week period. During Phase 1 the following was carried out:

- Learning assessments and pupil interviews were conducted for all GWDs
- Learning assessments and pupil interviews were conducted for the control group of girls without disabilities
- Household and/or caregiver surveys were conducted with the household heads/caregivers of the sampled GWDs
- Teacher and Head Teacher interviews
- Lesson Observations.

All learning assessments were conducted in the morning in order to give children the best opportunity to perform well.

For phase 2, only interviews with the household heads of girls without disabilities were administered. However, this also gave an opportunity for enumerators to complete any outstanding Teacher/Head Teacher interviews, lesson observations or outstanding interviews with those household heads and caregivers of GWDs who were unable to attend during phase 1.

All household heads and/or caregivers of the GWDs were pre-mobilised by CSU to be at the respective schools on the required day. All secondary schools were sampled in the first 3 days of phase 1 and then revisited at the beginning of phase 2 to ensure there were no clashes with exam timetables and that the intervention had minimal disruption on the learners' education. Primary schools were visited mid phase 1 and mid phase 2. Analysis of the quantitative data collected began on the 20th April 2018. Data was checked, cleaned and compiled as it was received.

The high-level interviews (KIIs) were conducted by Montrose's gender and disability technical specialist, Irene Among, who led sections of the enumerator training, with an emphasis on gender and disability. The Key Informant Interviews took place between 9th and 25th April 2018 with 9 Education officials[50], 2 members of the school Management committees[51] and 3 headteachers[52]. KIIs were recorded using voice recorders, with the consent of the respondents, and transcribed using MS Word. A content analysis was done to

[50] The Education officials that were interviewed represented organisations Ministry of Education and Sports, Kyambogo University, National Curriculum Development Centre, National Curriculum Development Centre, Gender and Community Development Services, and Uganda National Examination Board

[51] The SMC members that were interviewed were from Makerere University Primary School Kiswa Primary School.

[52] The headteachers that were interviewed were from Makerere University Primary School Nakivubo Blue Primary School and Kiswa Primary School.

identify the common themes. The analysis and collection of this data was done concurrently with that of the quantitative tools.

Focus group discussions were held at the Montrose Office in Naguru on the 14th and 15th May 2018. Two teams each comprising one senior enumerator and a disability expert conducted a series of focus group discussions with an average of 5 participants per group. Each FGD was conducted by an enumerator with qualitative data collection experience. Discussion groups were segregated by level of education i.e. primary school learners were interviewed separately from secondary school learners. Each discussion group had a combination of disability types represented. This approach to sampling shall be replicated at subsequent evaluation points as it provides insight into the needs per disability type.

Participation within the FGDs was fairly even although the older participants (Secondary School learners) were more vocal in their FGD than the younger children therefore most qualitative data presented was from Secondary School learners. This came as no surprise given the Ugandan cultural setting where younger children are not encouraged to be vocal despite the efforts to make them feel as comfortable as possible. The children spoke a lot about the corporal punishment they received in school although this was not specifically in relation to their being disabled. There were no major issues during the FGDs, however, participants were given a 5-minute break dependent on their level of vulnerability. Only those participants that made their way to Montrose on time took part in the FGDs.

The ethical considerations employed during the data collection are further explained in section 2.4.2.4 below.

Protocols for data collection and data quality

The data collection protocols included the child protection policy, confidentiality agreement and a disability manual containing the approved adaptions to be made per disability type. Before the data collection exercise began, all enumerators signed and confirmed their intended adherence to these data collection protocols. Additionally, all enumerators were provided with a protocol manual containing the roles and responsibilities of the senior enumerators, enumerators and disability experts; the suggested daily schedule; activities to be done before the school visit; responsibilities of the team upon arrival at the school; instructions for drawing the pupil or student sample; summary of tests to administer to pupils or students; instructions for the EGRA/EGMA/SeGRA/SeGMA; instructions for the classroom observations; instructions for the Head Teacher and Teacher Interviews; instructions for the Head of Household and Caregiver Interviews and finally how to finish-up work at the school and the activities to be done after the school visit.

The quality of assessment data collected is critical. To ensure standard data quality, teams were supervised and monitored periodically by Montrose representatives to ensure high quality data was collected. During the data collection exercise, team leaders met the Montrose project staff every weekend to reconcile data and reconcile uploaded data with field documents. The team composition and this quality assurance process helped to improved monitoring and accountability of the EGRA/EGMA/SeGRA/SeGMA process. Additional monitoring via the GPS tracking on the tablets and data uploads enabled Montrose to ensure that assessments had been carried out as planned, and to a high standard. CSU field monitoring also further ensured there was consistency and good quality collection of data.

Child protection during data collection

Montrose adhered to CSU Child protection policy which underpinned all methodologic approaches implemented during data collection. All enumerators were taken through the child protection policy and required to sign a statement of commitment to the child protection policy as confirmation that they would abide by it while in the field. The policy covered topics such as the

- Categorization of child abuse,
- Child safeguarding/ Protection and procedures;
- Recruitment, selection and engagement of personnel

- Code of Conduct
- Communication about children
- Standard Reporting Procedures including reporting steps and the information required when a report is being made and with whom the report should be filed
- Steps in conducting activities involving children
- Ramifications of Misconduct
- Assessment and management of child protection risk

2.4.2.4 Ethical considerations

Throughout this study, Montrose adhered and shall continue to adhere to both the 'UNEG Ethical Guidelines for Evaluations' and the 'UNICEF Procedure for Ethical Standards in Research, Evaluation, Data Collection and Analysis' and as a result endeavoured to adhere to the following guidelines:

- **Independence:** by ensuring that the research was free of bias through conducting personnel background checks to ensure total impartiality and ability to exercise independent judgement and escalating any issues that could have endangered the completion or integrity of the evaluation.
- **Impartiality:** giving a comprehensive and balanced presentation of strengths and weaknesses of the programme - see section 2.5 below for challenges and limitations of the methodology and evaluation results
- **Credibility:** This research was credible as demonstrated through its evidence-base of reliable data and observations presented in this report taking into consideration the safety and security of Montrose personnel and the respondents whilst in the field by getting informed consent from each participant and ensuring anonymity of respondents as all respondent names were omitted from the dataset.
- **Conflicts of Interest:** Conflicts of interest were avoided as far as possible so that the credibility of the research process and product shall not be undermined. All personnel were asked to disclose any conflicts of interest arising which in turn would have been disclosed to CSU by Montrose had they occurred so they could be dealt with openly and honestly.
- **Honesty and Integrity:** Montrose employed honesty and integrity throughout the entire research process. This included but was not limited to the recruitment of Montrose staff and adherence to in-country laws and regulations.
- **Respect:** This research respected participant's rights to provide information in confidence and ensured all participants are made aware of the scope and limits of confidentiality prior to their participation.
- **Dignity and Diversity:** The Montrose team ensured to respect differences in culture, local customs, religious beliefs and practices, personal interaction, gender roles, disability, age and ethnicity, and were mindful of the potential implications of these differences when planning, carrying out and reporting on the programme.
- **Rights:** Montrose ensured everyone participating in this evaluation had the right to self-determination where every participant will be treated as autonomous and given the time and information to decide whether or not they wish to participate and be able to make an independent decision without any pressure or fear of penalty for not participating. Participants were told they could stop at any time and there were instances where control group participants executed these rights.
- **Compliance with codes for vulnerable groups:** Montrose ensured members of vulnerable groups such as children or ethnic minorities participating in this research were protected through compliance with child protection policies and any laws governing interviewing children, young people and other vulnerable groups.
- **Redress:** Montrose ensured that all stakeholders and participants in this research received sufficient information to know how to seek redress for any perceived disadvantage suffered as a result of the research or the programme, and how to register a complaint concerning misconduct

of the Montrose team. Phone numbers of people to call both at Montrose and CSU were distributed and enumerators trained to identify those who they felt required additional support from CSU through the project.

- **Confidentiality:** Montrose respected people's right to provide information in confidence and make participants aware of the scope and limits of confidentiality. Montrose ensured that sensitive information cannot be traced to its source by anonymising the dataset so that individuals were protected from reprisals. Montrose employed the use of unique identification numbers for each participant to ensure discretion in the data collected.
- **Avoidance of Harm**: Montrose sought to minimise risks to, and burdens on, those participating in the review and sought to maximise the benefits and reduce any unnecessary harms that might occur without compromising the integrity of the evaluation. Montrose analysed risks and identified mitigation measures through the use of a risk rating matrix which is completed for every Montrose project to ensure avoidance of harm.
- **Accuracy, Completeness and Reliability:** Montrose ensured that all reports such as this report were accurate, complete and reliable.
- **Transparency:** Montrose clearly communicated to stakeholders the purpose of the evaluation, the criteria applied and the intended use of findings as part of the introduction. Enumerators were given a script to read out to ensure that everyone involved was clear about the purpose of the evaluation and its intended use.
- **Omissions and Wrong-doing:** Had Montrose found evidence of wrong-doing or unethical conduct, we would have reported it to CSU immediately and documented all evidence and actions taken to rectify the wrong-doing.
- **Beneficence:** Montrose ensured that actions done within evidence generating activities promote the well-being of individuals, communities or society as a whole. Where possible, any evidence generated will be conveyed back to the participants so that they may triangulate findings, contextualise their participation and potentially gain from the knowledge disseminated. This will be done as part of the dissemination process once this report has been finalised and approved.
- **Justice:** Montrose ensured that due reflection was given to determining the appropriateness of proposed methods of selecting participants and selection did not result in unjust distributions of the burdens and benefits of evidence generation on certain participant groups over others.

2.4.3. Data analysis

The data for the EGRA/EGMA assessments and pupil interviews were collected via tablet computers and uploaded through 'Tangerine'[53]. Data for the Teacher/Head Teacher interview and household/caregiver interview were collected using SurveyCTO[54], a cloud-hosted platform designed to assist data collection in the field. Both pieces of software came equipped with repositories where data could be stored for access at a future time. Data from the lesson observation and any open-ended questions in the household/caregiver or teacher/headteacher interviews and the SeGRA/SeGMA pupil responses were marked by hand using the pre-approved marking scheme (see Inception Report in Annex 6) and scores entered into Excel using data entrants.

This data was then compiled into two separate Excel spreadsheets for the project data analysts to clean. Two statisticians analysed and generated the required statistics to allow for a quick turnaround of this report. All data collected has been kept with the utmost confidentiality, only accessible to the data analysts and designated members of the evaluation team. Appropriate disclosure risk management measures were applied. The research removed any direct identifiers in the data and assigned a unique project ID to each

[53] Tangerine is an open source software programme that has been developed by RTI to electronically collect EGRA and EGMA data on smart devices. http://www.tangerinecentral.org/

[54] SurveyCTO is a cloud-hosted platform developed from the OpenDataKit. This tool consists of the SurveyCTO Server which hosts all survey forms, SurveyCTO Collect (the mobile data collection app), and SurveyCTO Sync (the desktop software to export data onto your computer). http://impacttrackertech.kopernik.info/technology/surveycto

study participant (GWDs and girls without disabilities) which also facilitated the linking of data sets. Once collected, the data underwent procedures to protect the confidentiality of individuals whose personal information was part of archived data.

The data cleaning process involved checking for consistency through the triangulation of the field documents submitted by senior enumerators and data reflected in the Tangerine and Survey CTO software. The main field document used for this purpose was the sampling register that summarised the team's work in a school, the enumerator's daily summary sheet and the senior enumerator's daily summary sheet.

SeGRA/SeGMA hard copies provided additional back-up to support any consistency checks. Together with the daily summary sheets the project staff and data analysts were able to check and solve any inconsistencies in the learner assessments and pupil interviews. Hard copies of the classroom observation, pupil disability criteria questions were also returned to the project and these also helped inform consistency checks.

Data analysis of quantitative data was carried out using STATA software to generate statistics for the tables within this report. The Chi-square test and Z test were used to conduct significance testing to provide the P values that can be found in tables throughout the report. To facilitate the further writing of the report, the data analysts were required to develop composite scores using Principal Component Analysis (PCA) in Stata software. The composite scores that have been create for purposes of this report include,

- The wealth/poverty index,
  A continuous empowerment index and five quintiles was generated [1=Lower 2=Low 3=Middle 4=high 5=Higher]. The 5 levels were further grouped as [1/2=Low 3=Middle 4/5=Highly empowered].

- Economic empowerment composite score,
  A continuous empowerment index and five quintiles was generated [1=Lower 2=Low 3=Middle 4=high 5=Higher]. The 5 levels were further grouped as [1/2=Low 3=Middle 4/5=Highly empowered].

- Household chore burden composite score
  This score was generated to assess if the girl has sufficient time to study outside school days. The score was categorised as heavy chore burden, moderate chore burden and non-heavy/normal chore burden.

- Girl's life skills score
  This is a composite index generated from the five of the questions on girl's life skills section using the Pupil Caregiver (PCG) data. A cumulative score was constructed using egen command in Stata and row sums over the five questions leading to a cumulative score ranging from 5 to 25 were obtained. Responses were then categorised in i) Doesn't yet do/Does with lots of help (Score less or equal to 10), ii) Does with some help (Score ranging from 11 to 15) and iii) Does with little help/Does independently (Score greater or equal to 16).

- Girl's self-esteem score
  The girl's self-esteem score was constructed using 7 questions from the Pupil Context Interview (PCI) data set. Similar to the Girl's Life skills score and following the computation of a cumulative score with a maximum of 7, responses were categorised into High and low self-esteem.

- Basic needs score
  This composite score was constructed to measure if a household is able or unable to meet its basic needs. It was constructed from 4 questions from the PCG data set. The two categories that were

developed for the purpose were i) able to meet basic needs (score is less or equal to 8) and ii) unable to meet basic needs (Score is greater than 8).

- Support to stay in school score
  This score was constructed to assess if the girl receives support to stay in school or not. It was constructed based on a set of 10 questions from the PCG data. Two categorisations (receives support and does not receive support) were made and results obtained using PCA as explained in previous sections.

- Acceptance of the GWD by the girls without disabilities.
  This score was generated using the Knowledge Attitudes and Practises (KAP) questions in the PCI data set to assess the perception of girls without disabilities towards the girls with disabilities. It was based on the 5 questions from which 2 categorisations were made. Analysis for this score also utilised PCA.

- Attitudes and perceptions of caregivers/parents towards GWD
  The score was generated based on 6 questions from the PCG data set. Two categorisations i) Accepting GWD or Positive attitude towards GWD and ii) not accepting GWD or negative attitude towards GWD. Similar to other scores, this analysis used a PCA.

More details on the questions used to construct these composite scores can be found in Annex 7 of this report.

Free text data (e.g. in the teacher interview and observations), along with qualitative data gathered from focus group discussions (FGD) and Key Informant Interviews (KIIs) with Education Authorities were analysed using the following qualitative data analysis methods allowing for identification of common patterns and themes:

- Eyeballing and pawing (also called “ocular scan” method)
- Word repetitions
- Disaggregated analysis (where possible) against any measurable inputs from the lesson observation
- Coding of common responses to allow for comparisons across target groups and schools.

Notes from the KIIs and FGD can be found in Annex 7 of this report.

All analysis and interpretation of the data responds to the scope of work as defined and shaped during the inception period and post pilot period. During this baseline analysis, results have been compiled in this baseline assessment report using a reporting template designed by the Fund Manager.

2.5 Challenges in baseline data collection and limitations of the evaluation design

This section describes the limitations in the data collection process and the challenges encountered in the implementation of this research study. These are challenges and limitations associated with the methodology of the evaluation. The following list is by no means exhaustive.

1. The CSU Theory of Change centres around rolling out a number of interventions and activities designed to overcome barriers and improve learning and transition outcomes for girls. Much of the evaluation focuses on whether these interventions have been effective and good VfM. However, as outlined above, it was deemed not possible to include a control group of GWDs in non-intervention schools (i.e. supported by CSU or other donors). This will mean that it will be difficult to evaluate effectiveness and VfM of specific interventions. Montrose will look to mitigate this by including a protocol within the

sampling frame at midline and endline evaluations, once interventions are underway, to ensure analysis also looks at different baskets of interventions: some GWDs are receiving more support than others, and the results from each basket of interventions can be compared within our overall GWD cohort to assess the value added of each basket of interventions. In addition, Montrose will still be able to show whether the interventions rolled out have reduced the inequality gap between girls with and without disabilities

2. GWDs are not a homogeneous group and trying to accommodate inter-sectionalities in the set of participants in the study brings a high degree of complexity that is not easily accommodated, especially given Limitation 1, above. Montrose has had to make choices regarding the extent to which multi-variate analysis will be used in the survey, and the extent to which results will be generalisable. As such, the analysis is selective rather than exhaustive and the important granularities for all respective groups cannot always be identified.
3. Due to the scope and timelines of the study, it is not possible at this stage to include girls with severe disabilities.[55] Whilst results will be generalisable to GWDs in mainstream education it is important to note that they will not be comparable to girls with more severe disabilities. This is a topic for further consideration, particularly as severely disabled girls are often particularly marginalised and excluded, and therefore it is important to reconcile the 'leave no-one behind' agenda when considering learning outcomes for these girls.
4. The study design is longitudinal and centres around tracking the same girls and their families over time, yet the girls in our cohort are complex and vulnerable: some girls do not have permanent homes and are living on the streets. Whilst robust mechanisms will be put in place to track girls, it may be that this is not always possible.
5. Adapting learning assessments for GWDs has not been done before. We have worked to adapt tools in such a way that they retain the integrity of the initial EGRA/EGMA assessments (thus helping comparability where possible) whilst accommodating the needs of the girls. The piloting of the tools helped to create an evidence-base to ensure adaptations go far enough for the target cohort, that floor/ceiling effects will not be so great as to distort distribution curves and that the results will tell us something meaningful about GWDs' learning outcomes. However, being able to use the results from these adapted tools as a comparative measure against other GEC-T projects focusing solely on children without disabilities is difficult. For example, one adaptation was to give GWDs more time on the timed tasks and so the oral reading fluency subtask is timed for 3 minutes instead of 1 minute. Allowing additional time to complete a task is a standard adaptation for CWDs who can have difficulties with reading words, saying words or with concentration on the task, depending on the severity of the individual's disability. For the purpose of comparison with other projects, a minute marker was added to the survey using the tablet settings without the knowledge of the learner so that this record could also be obtained. However, it would be the decision of the FM whether the Words-Per-Minute (WPM) score used to compare results across GEC-T projects is a true WPM or a Words-Per-3-Minutes score, both have been included in the results of this report.

[55] After lengthy discussion it was agreed that girls with severe disabilities will not be included within the study. This is because, the premise of the study is to compare the inequalities in learning outcomes between CWD and children without disabilities. This can only be done with those children who are disabled yet learning in mainstream education. All children supported by CSU who are severely disabled for example, completely blind or completely deaf, are accessing education through specialised disabled-only schools. In this instance the classrooms and the teachers are far more adept at managing issues related to CWD as a result of government offering funding and training to headteachers of these specialised school as is evidenced in this report in section 5.2.1. If the evaluation was to work with those children in specialised schools for the disabled, it would not be possible to collect a control group of non-disabled children. Furthermore, from the information on the CSU supported children that was available pointed to low numbers of girls with a very severe disability: around 8% of those identified with a visual disability as totally blind and around 12% of those identified with a hearing disability as totally deaf. In addition, due to the lack of information it was not possible to determine whether any or all of these children use Sign Language or Braille to communicate, and if so, which form of these they use. Therefore, as CSU are focused on supporting GwD in mainstream and not specialised schools and there are very few girls with severe disabilities permitted to attend mainstream schools as they do not have the facilities to cater for their needs, it was agreed to limit the inclusion criteria to girls with visual, hearing and communicative impairments that attend mainstream schools. This was approved by the FM as it was included in the inception report.

6. During the pilot process it became apparent that approximately 30% of treatment learners were not scoring as having a disability using the Washington Group Questions (WGQ). Given that the DID approach to this study relates to the difference in inequalities between disabled and non-disabled, if children scoring as having no disability on the WGQ test are included in the treatment cohort it has the potential to skew the results and reduce the generalisability of the sampled 'treatment' learners. Therefore, prior to baseline data collection, a validation exercise was conducted whereby the WGQ were administered to all the sampled CWDs to ensure those remaining in the sampling frame were scoring as having a disability according to the WGQ. This exercise took some time which delayed the data collection process.
7. Purposive sampling for qualitative studies has the potential to risk bias in the way in which the participants are selected, particularly in a situation such as this whereby the technical expert carrying out the KIIs is a leader in her field operating in an environment where there are very few technical experts in disabilities and therefore she is already familiar with the key players working in the sector in Kampala. This is overcome by having very specific criteria for the purposive selection such as 'select the most senior person responsible for disabilities in education working in each institution e.g. KCCA'. Once these parameters for selection were set, the opportunities for selection bias through purposive sampling was greatly reduced.
8. Participation in the study was voluntary and those girls in the control group, who are not receiving any CSU support, did not always have an incentive to partake and so, in some instances, opted out of the study at the last minute. Whilst this was easily overcome by the enumerator returning to the class to select another control matched child, this still took time and added to the number of interruptions to the class. In addition, some of the control children and their families, having participated in the study, then began to assume they would be receiving CSU support despite being clearly told this would not be the case. Thus, expectation management within the control group also became a challenge. Three disability experts that participated in both the training and the pilot study withdrew from the baseline during the exercise as they had exams or found permanent employment. This meant only 5 of the 7 teams had the support of the disability expert throughout the exercise. This challenge was overcome through using the IRR testing to identify the strongest enumerators and placing the disability experts with the remaining teams who required additional support.

It is worth noting that as this GEC-T project is a follow-on from GEC-1, this evaluation is not a true baseline, as many of the children and the primary schools may have already received some inputs from GEC-1.

3 Key Characteristics of Baseline samples

3.1 Project beneficiaries

Project beneficiaries include 2,060 girls with disabilities that were supported in the phase 1 of the Girls' Education Challenge and an additional 587 boys with disabilities. These supported students are disaggregated by grade as shown below:

TABLE 7: DISTRIBUTION OF PROJECT BENEFICIARIES BY GRADE

Grade	P1	P2	P3	P4	P5	P6	P7	S1	S2	S3	S4	S5	S6	OOS
Project beneficiaries (boys and girls)	5.9%	8.2%	9.6%	14.7%	17.1%	15.7%	2.7%	21.3%	1.8%	0.3%	0%	0%	0%	2.6%

TABLE 8: DISTRIBUTION OF PROJECT BENEFICIARIES BY AGE

Years	6 - 8	9 - 11	12 - 13	14-15	16-19	Above 19
Project beneficiaries	12.6%	29.3%	26.1%	21.4%	9.9%	0.7%

The major barriers to educational marginalisation of girls with disabilities in Uganda as identified by the project are i) gender related stereotypes, ii) negativity arising from having an impairment and iii) poverty among households of girls with disabilities. Other barriers to educational marginalisation and particularly to transition into higher grades are the girls' attitude and self-esteem, inadequate training of teachers to conduct classes in an inclusive manner; inaccessible school environment; limited access to teaching and learning materials and child abuse, amongst others.

Additionally, different impairments pose different transition barriers due to inaccessible infrastructure, non-adapted curriculum, and attitudinal barriers. For example;

- children with difficulty walking and climbing stairs experience access related barriers if schools are far away, not adapted and above all if the child has no mobility device;
- children with difficulty seeing and difficulty hearing experience challenges in accessing the curriculum due to inaccessible teaching and learning materials (lack of sign language, brail, slates and stylus) and lack of assistive devices (eye glasses, white canes, hearing aids);
- children with difficulty remembering or concentrating and difficulty in communicating are faced with teachers who lack the capacity to handle their situation;
- children with self-care difficulty are more likely not to transition unless the schools allow them to have caregivers to support them while they are in school.

3.2 Representativeness of the learning and transition samples across regions, age groups, grades, disability status and sex of the beneficiaries

As outlined in section 2.4.1.1 Sampling Framework, Montrose has tried as far as possible to ensure that that every intervention child is matched with a non-intervention child sharing the same class and age. table **9**, Table 10 and Table 11 below provide details of the evaluation sample broken down by grades, age and disability type for both the intervention and control group, where applicable.

TABLE 9: EVALUATION SAMPLE BREAKDOWN (BY GRADE)

	Intervention (Baseline)	Control (Baseline)
Sample breakdown (Girls)		
Primary 3 (% in grade 3)	5.0	5.0
Primary 4 (% in grade 4)	6.9	7.0
Primary 5 (% in grade 5)	11.7	12.8
Primary 6 (% in grade 6)	10.4	10.6
Primary 7 (% in grade 7)	10.2	9.9
Senior 1 (% in Senior 1)	1.9	1.1
Senior 2 (% in Senior 2)	3.7	3.2
Senior 3 (% in Senior 3)	0.4	0.2
OOS girls (%)	0	0
Girls (sample size)	**50.2**	**49.8**

table **9** above shows the characteristics of the sampled groups disaggregated by grade and highlights that the majority of the sampled learners were found in Primary (P) 5-7. Please note that there was one control child who opted out of the test half way through and therefore it appears there are more intervention than control girls. The minimal differences by grade is as a result of the small difference in denominator once the incomplete test was taken out. At the time the enumerator was unaware we couldn't use a partially completed test and so did not select an additional control learner to test. This difference is not statistically significant[56] and will not affect the outcomes of the findings.

TABLE 10: EVALUATION SAMPLE BREAKDOWN (BY AGE)

	Intervention (Baseline)	**Control (Baseline)**
Sample breakdown (Girls)		
Aged 6-8 (% aged 6-8)	2.4%	3.9%
Aged 9-11 (% aged 9-11)	15.1%	17.3%
Aged 12-13 (% aged 12-13)	16.5%	17.8%
Aged 14-15 (% aged 14-15)	13.0%	8.6%
Aged 16-17 (%aged 16-17)	2.2%	0.7%
Aged 18-19 (%aged 18-19)	0.7%	1.1%
Aged 20+ (% aged 20 and over)	0.2%	0.4%
Girls (sample size)	**50.2%**	**49.8%**

Table 10 above shows the sample disaggregated by age. It is interesting to note that whilst table **9** found the majority of learners were in grades P5-P7, which would ordinarily be for learners aged 10-13 years, Table 10 demonstrates the increase in age of the intervention students compared to the control suggesting there are older disabled children in the lower grades, possibly as a result of poorer transition or parents being less willing to educate their disabled children and so enrolling them at an older age, when CSU agreed to support school fees.

[56] The P- value is $p = 0.76$ hence $p > 0.05$ meaning that there is no significant difference in the means of the intervention and control girls.

TABLE 11: EVALUATION SAMPLE BREAKDOWN (BY DISABILITY)

Sample breakdown (Girls)	Intervention (Baseline)	Control (Baseline)	Household Survey and Girls School survey – Washington Group and child functioning questions
Girls with disability (% overall)	50.7	N/A	
Provide data per disability group			
Difficult hearing	18.5%		
Difficulty seeing	38.0%		
Physical difficulty	17.0%		
Intellectual/cognitive difficulty	18.8%		
Difficulty communicating	3.6%		
Difficulty with self-care	1.4%		
Multiple difficulties	2.5%		
total	100%		

Note: The % breakdown by impairment is out of 100% of those who are impaired and who account for 50.7% of the total sample.

Table 11 above shows the distribution of intervention children disaggregated by disability type as determined by administration of the Washington Group Questions (WGQ) and the child functioning questions. As expected, the majority of the GWDs have an impairment falling within the four main categories of hearing, visual, physical and intellectual categories.

Note: **GEC states that the population identified as having a disability should include all those with difficulty *in at least one domain* recorded at *a lot of difficulty* or *cannot do at all*.** This applies to both the Washington Group short set of questions and the longer child functioning questions. This cut-off point will provide the most accurate representation of the population who have an impairment which may act as a barrier to learning. However, this evaluation only considered GWDs whose impairments were deemed not severe and adaptations to the tools were made with this level of impairment in mind.

3.3 Educational Marginalisation

This section analyses the various barriers that cause educational marginalisation of GWDs in comparison to girls without disabilities. It also presents an intersection of the characteristics of GWDs and these barriers to education with the aim of tracking changes to marginalisation and understanding the layers of complexity that intersect to cause the girls' marginalisation.

table 12 below outlines the key characteristics of those girls' sampled both as part of the intervention and the control groups.

TABLE 12: GIRLS' CHARACTERISTICS BY SUBGROUP

Characteristics	Intervention	Control	P value	Source (Household and Girls School survey)
Sample Breakdown (Girls)				
Orphans (%)				
- Single orphans	22.0	16.3	0.143	PCG_11g
- Double orphans	4.7	1.9	0.115	PCG_13g
Living without both parents (%)	28.5	30.8	0.610	PCG_10g PCG_12g
Living in female headed household (%)	56.1	58.2	0.663	hh_2
Poor households (%)				
- HOH is in the lower/lowest wealth quintile	49.5	45.6	0.625	povertcat
- Household doesn't own land for themselves	57.9	61.5	0.565	hhe_6e
-Girl receives support to stay school	82.3	31.9	0.000**	support_cat
-Lives in a traditional house/hut (e.g. from thatch or mud)/tent/shuck	9.8	5.7	0.468	Hhe_1
-Lives in iron sheet roofed house	86.9	89.4	0.560	Hhe_2
-Lives in a mud/thatch/wood/plastic/ cardboard house	2.8	1.0	0.560	hhe_2
- Household unable to meet basic needs	20.2	22.7	0.530	no_basicnds
- Gone to sleep hungry for many days in past year	11.0	10.7	0.915	hhe_6a
-Gone without income for many days	46.1	48.0	0.701	hhe_6d
Language difficulties:				
- LoI different from mother tongue (%)	96.3	97.1	0.624	loi_mother
- Girl doesn't speak LoI (%)	50.9	45.2	0.238	speakloi
Parental education				
- HoH has no PLE certificate (%)	42.8	32.0	0.015**	hh_13
- Primary caregiver has no PLE certificate (%)	42.7	35.4	0.049**	PCG_6
Parental Occupation				
-HOH is unemployed	46.7	46.1	0.356	hh_11new
-Primary care giver is self-employed	11.7	20.7	0.016**	pcg_5new
*** Implies that the difference between the intervention and control group for that particular characteristic is significant at 95% confidence interval*				

The findings show that the majority of characteristics show no statistically significant difference between the intervention and the control groups. This is because, where possible, the control groups were 'matched' with the sample when being selected. That said, there are four key characteristics which are statistically significant, and these are:

- The intervention learners are more likely to receive support to stay in school which is not unexpected given this is one of the CSU interventions which had already begun at the time of the baseline survey
- A higher proportion of intervention learners had a household head (HoH) who had no PLE certification
- A higher proportion of intervention learners had a caregiver without a PLE certificate – as most of the HoHs were also the main caregiver this aligns to the previous point
- A higher proportion of the control learners had a primary caregiver who was self-employed – this could be because the caregivers of the GWDs were required to stay home and care for the child with disabilities as a result of their impairment, whereas the parents of the control group were more able to

leave the home and find work in areas such as informal selling of goods, which in this case would be deemed as 'self-employed'

The high levels of poverty found in both the intervention (49.5%) and control (45.6%) groups highlight that the schools being targeted by the project are primarily found in the lower socio-economic areas of Kampala.

Barriers

Table 13 below lists potential barriers to learning and transition for girls with disabilities in the intervention group and girls without disabilities in the control group. The percentage of girls who reported these barriers during the learner context survey is provided for each category, broken down by grade; each grade grouping represents a transition category in the sample (e.g. P3-P4 will transition to upper primary and lower secondary during the 7-year programme; P5-P6 will transition to lower and upper secondary; and P7-S3 will transition to and through all of secondary school). Potential barriers to education access, completion and transition are indicated in the table, including safety on the way to school, parental and caregiver support to education, learner attendance, school facilities, and teacher presence and attitude.

TABLE 13: POTENTIAL BARRIERS TO LEARNING AND TRANSITION

	Intervention (Baseline)			Control (Baseline)			Source
Sample breakdown (Girls)							
Home – community							
	P3-P4	***P5-P6***	***P7-S3***	***P3-P4***	***P5-P6***	***P7-S3***	
Safety							
Fairly or very unsafe travel to schools in the area	42.2%	36.1%	27.6%	32.3%	27.8%	26.0%	LCI_6C
Parental/caregiver support							
Insufficient time to study due to high chore burden	73.4%	65.5%	54.0%	80%	75.4%	68.8%	LCI_8g
Doesn't get support to stay in school and do well	10.9%	10.1%	17.2%	46.2%	52.4%	53.2%	LCI_14
School level							
Attendance							
Learner missed school in the last week	43.8%	40.3%	28.7%	36.9%	41.3%	27.3%	LCI_11a
School facilities							
Difficult to move around school	7.8%	14.3%	23.0%	1.5%	9.5%	10.4%	LCI_17e
Latrine dirty	14.1%	23.5%	25.3%	16.9%	16.7%	26.0%	LCI_16b
Difficulty using the latrine	10.9%	7.6%	13.8%	4.6%	7.9%	10.4%	LCI_16c
Doesn't play any sports at school	56.3%	54.6%	47.1%	49.2%	44.4%	45.5%	LCI_19a
Doesn't take part in any activities after/outside school	70.3%	68.9%	56.3%	75.4%	71.4%	74.0%	LCI_19c
Teachers							
Disagrees teachers make them feel welcome	3.1%	4.2%	3.5%	6.2%	3.2%	1.3%	LCI_24k
Agrees teachers often absent from class	31.3%	21%	11.5%	24.6%	16.7%	7.8%	LCI_11d

Overall, girls in both the intervention and control groups reported fairly similarly with respect to the barriers they face to their education both within and between grade clusters. Differences in responses were most pronounced between intervention and control in the barriers related to safety, parental and caregiver support for education, and difficulty moving around school and using the latrine. This is probably due to the support CSU is providing to girls with disabilities in schools (e.g. intervention girls reported fewer barriers regarding parental support than control girls), and to the lack of adequate school facilities for girls with disabilities (e.g. girls with disabilities were more likely to state difficulty moving around school or using the latrine than girls without disabilities). Barriers related to safe school travel were more pronounced in the intervention group, probably due to the difficulties children with disabilities face traveling on the road to school and accessing school compounds in slum areas.

Changes in these barriers will be tracked over time at subsequent evaluation points to determine their effect on learning outcomes and transition opportunities for those learners sampled.

table 14 below shows the perceived barriers to learning that caregivers feel girls with disabilities face disaggregated by intervention and control groups. In the majority of cases the percentage of caregivers who agreed with the statements about barriers is not statistically significant meaning it is likely to have happened by chance. However, there were two statistically significant findings to note:

- More caregivers in the intervention (69.6%) compared to the control (59.1%) group felt that the lack of assistive devices prevents girls with disabilities from going to school (P=0.024). Although not statistically significant, an analysis within the intervention subgroup (table 15) revealed that caregivers perceived this barrier to be more of a hinderance for girls with hearing (82%), multiple (75%), visual (73.2%) and communication (70%) impairments.

- More caregivers in the control group (38.9%) compared to the intervention group (27.6%) feel that it is not worthwhile for children with disabilities to learn (P=0.014). Although fairly distributed but still not statistically significant, an analysis within the intervention subgroup (table 15) revealed that caregivers perceived this barrier to be more of a hinderance for girls with self-care (50%), multiple (41.7%), and communication (40%) impairments and less so for girls with hearing impairments (20%). The above distribution within the intervention group for this perceived barrier indicates the disability types that are more likely to drop out of school in-case of a major occurrence that prevents parents from sending them to school.

TABLE 14: HOUSEHOLD/CAREGIVER PERCEIVED BARRIERS TO LEARNING BY SUBGROUP GROUP

Do the following represent barriers that prevent Girls with disabilities from going to school.	Agreed (%)		
	Intervention	Control	P value
Schools are not physically accessible	51.9	46.6	0.276
Toilets in the school are not physically accessible	49.1	45.2	0.422
The lack of assistive devices	69.6	59.1	0.024**
Schools are a long distance from home	59.3	62.2	0.542
There is no means of transportation to the school	53.7	53.4	0.951
Parents think children with disabilities should not go to school	34.1	34.1	1.000
Parents generally think children with disabilities can't learn	28.0	35.1	0.116
Parents generally think it is not worthwhile for children with disabilities to learn	27.6	38.9	0.014**
Parents are worried their children with disabilities will be abused (bullied, teased, ill-treated, etc.)	63.5	69.7	0.177

Do the following represent barriers that prevent Girls with disabilities from going to school.	Agreed (%)		
	Intervention	Control	P value
Parents cannot afford direct costs for the school (e.g. uniform, books, fees)	79.4	71.5	0.059
Parents cannot afford indirect costs for the school (e.g. meals, transportation)	75.7	69.2	0.135
lack of expertise of teachers	51.9	45.7	0.203
Natural environmental barriers (e.g. animals, rivers, floods, etc.)	57.9	573	0.556
***Indicates a statistically significant finding with a Confidence Interval of 95%*			

It is important to note that there were no significant relationships between the perceived barriers to learning and the different forms of disability within the intervention sub-group (table 15 below). Nonetheless, the majority of caregivers across the disability types, believed that a lack of assistive devices and the inability of the parents to afford both direct and indirect costs associated with schooling were major barriers to learning for GWDs. Though not significant, more caregivers of girls with multiple (91.7%) and communication (80%) disabilities were worried that their girls would be abused at school than caregivers of girls with other disabilities.

Additionally, about half of the caregivers across the different disability types agreed that teachers' lack of expertise to teach disabled girls and no means of transport to take girls to school were also major barriers to learning for their GWDs. See table below for more details.

TABLE 15: HOUSEHOLD/CAREGIVER PERCEIVED BARRIERS TO LEARNING FOR GWD BY DISABILITY TYPE

Do the following represent barriers that prevent Girls with disabilities from going to school.	Agreed (%)							
	Communication	Hearing	Intellectual	Multiple	Physical	Self-care	Visual	P value
Schools are not physically accessible	60.0	47.6	56.8	50.0	56.0	33.3	50.0	0.893
Toilets in the school are not physically accessible	60.0	53.7	50.0	41.7	41.7	50.0	55.1	0.811
The lack of assistive devices	70.0	82.0	69.1	75.0	63.0	66.7	73.2	0.658
Schools are a long distance from home	70.0	57.1	56.8	75.0	62.0	33.3	60.6	0.712
There is no means of transportation to the school	60.6	50.0	59.1	41.7	54.0	50.0	57.7	0.923
Parents think children with disabilities should not go to school	40.0	31.7	25.0	58.3	30.6	33.3	39.7	0.400
Parents generally think children with	40.0	15.0	27.3	41.7	26.0	33.3	34.3	0.356

Do the following represent barriers that prevent Girls with disabilities from going to school.	Agreed (%)							
	Communication	Hearing	Intellectual	Multiple	Physical	Self-care	Visual	P value
disabilities can't learn								
Parents generally think it is not worthwhile for children with disabilities to learn	40.0	20.0	25.0	41.7	28.0	50.0	29.8	0.571
Parents are worried their children with disabilities will be abused (bullied, teased, ill-treated, etc.)	80.0	53.7	59.1	91.7	68.0	50.0	66.7	0.200
Parents cannot afford direct costs for the school (e.g. uniform, books, fees)	70.0	81.0	84.1	75.0	82.0	50.0	78.6	0.575
Parents cannot afford indirect costs for the school (e.g. meals, transportation)	50.0	78.1	77.3	75.0	78.0	66.7	71.8	0.626
lack of expertise of teachers	50.0	57.1	53.7	45.4	53.2	50.0	52.2	0.996
Natural environmental barriers (e.g. animals, rivers, floods, etc.)	30.0	66.7	62.8	50.0	63.3	33.3	57.7	0.308

3.4 Intersection between key characteristics and barriers

The following section explores the intersection between key characteristics and barriers to education. This cross-correlation of the data outlines how each of the characteristics mentioned above affects barriers to education which may exist in the home or school, or at the system level.

table 16 shows the barriers to education by the household characteristics disaggregated by intervention and control groups. The findings suggest there are very few statistically significant differences between the control and intervention groups. This is to be expected given that the sample and control groups both attend the same schools and live in similarly low socio-economic situations. There are only two barriers which are statistically significant at a 95% confidence interval and those indicate:

- 24.4% of girls in the intervention arm whose caregiver has no PLE certificate have difficulty getting to school (p=0.015)
- 9.3% of girls in the intervention arm whose caregiver has no PLE certificate attends school less than half the time which is significantly higher than all other characteristics and could suggest that these households and GWDs are more vulnerable and marginalised

Whilst no other findings are statistically significantly different, the results of the analysis are interesting, especially for the Ugandan context where girls missing school as a result of menstruation is currently a hot topic in the media and amongst policy-makers. In this instance the findings indicate that girls with disabilities are more likely to miss school when menstruating compared to girls with no disability. For-example 13% of the orphaned girls reported to have missed school when in menstruation periods compared to 6% reported in the control group. Given that menstruation occurs every 28 day this is a lot of school to be missing for some GWD. The provision of sanitary pads and proper counselling may help in achieving 100% attendance of schools for girls in menstruation periods.

TABLE 16: EXAMPLES OF BARRIERS TO LEARNING BY CHARACTERISTIC

	Characteristics							
Barriers: (all values are given as %)	Household head has no PLE certificate		Girl is an orphan		Household is poor		Household is female headed	
	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control
Parental/caregiver support:								
Girl has sufficient time to study [Low chore burden]	31.4	17.6	28.1	18.4	30.2	22.1	30.0	20.7
Gets support to stay in school and do well	100.0	20.8	66.7	27.8	100.0	32.5	90.0	26.2
Lack of assistive devices	70.4	16.1	75.9	16.2	68.3	11.7	68.5	13.0
Difficult for the girl to travel to school	24.4**	25.4	19.3	15.6	16.0	18.9	17.5	14.1
Girl always or sometimes misses school while menstruating	11.4	4.5	13.0	5.9	13.9	8.7	10.4	2.7
School level								
Disagrees teachers make them feel welcome	3.7	0.0	5.6	2.7	4.9	0.0	4.5	0.0
Girl attends school less than half time	9.3**	0.0	5.3	2.6	3.8	1.0	5.0	1.6
Girl faces challenges daily at school	38.4	19.1	26.3	31.6	38.7	26.3	39.2	20.7
Girl with disabilities interacts with other children at school	60.0	25.0	85.7	16.0	62.5	22.8	81.8	23.2
Community level								

Unsafe to travel to school	25.3	36.7	19.6	36.1	24.4	34.8	24.1	30.1
Takes more than 30 minutes to travel to school	25.3	45.0	25.5	33.3	24.2	39.3	24.1	39.8
***Indicates a statistically significant finding with a Confidence Interval of 95%*								

The findings suggest that in all of the four household characteristics groups, the GWDs have a significantly smaller chore burden and therefore more time to study. This could be as a result of their disability either preventing them from assisting with chores or perceptions within the household that they are unable to carry out chores at home. This finding could be leveraged by CSU as a positive advantage which GWDs have over their non-disabled counterparts when it comes to having time and space in the evenings to study and improve learning outcomes amongst the intervention group.

Even though there are very few girls whose caregivers reported that they attended school less than half the time across the sample groups, there are significantly more girls in the intervention group that attended less than half the time compared to the sample group. This trend is similar amongst the four characteristics investigated in table 16. For example, 9.3% of the girls in the intervention group from households with no PLE attended school less than half the time compared to 0% in the control group.

The findings also indicate that girls with disabilities are more likely to miss school when menstruating compared to girls without disability. For example 13% of the orphaned girls reported to have missed school during their periods compared to 6% reported in the control group. This could be as a result of inadequately adapted sanitation facilities in the schools. Provision of sanitary pads and proper counselling may help in achieving 100% attendance of schools for girls during menstruation.

Surprisingly, there are more girls reporting that it is unsafe for them to travel to school in the control sample than in the intervention group. For example, 33% of the girls with no disability in the poor households reported feeling unsafe while travelling to school compared to 22% among the girls with disabilities. This requires further investigation at the midline and endline evaluation points as it could be that the CSU provision of transport for some GWDs is having a positive impact on the intervention groups or, conversely, it could be that non-disabled girls feel more at risk of experiencing sexual and physical violence as they walk to school as a result of their not having a disability.

3.5 Appropriateness of project activities to the characteristics and barriers identified

The major causes of educational marginalisation of GWDs in Uganda as identified by the project are i) gender related stereotypes, ii) negativity arising from having an impairment, and iii) poverty among households of girls with disabilities.

When assessing the appropriateness of project activities against the barriers identified by CSU, given the analysis outlined in previous sections, the following conclusions can be made:

- **Gender related stereotypes:** On average 70% of girls (both treatment and control) are reported not to have enough time to study as a result of a high household chore burden (see table 16). Similarly, on average 69% of caregivers report that the girls participating in the study (both treatment and control) do not participate in any extra-curricular activities which could be as a result of their high chore burden at home. These findings support the theory that gender stereotypes with respect to girls needing to carry out the majority of the household chores are indeed a barrier to their being able to engage in recreational school-based activities outside the classroom, which have been found to have educational benefits to the child. In addition, having

little time to study as a result of high chore burden will also have a negative impact on learning outcomes

- **Negativity arising from having an impairment:** table 14 above outlines the attitudes of caregivers of both GWDs and girls without disabilities where 38.9% of control group caregivers and 27.6% of intervention group caregivers reported to feel that it is not worthwhile for CWDs to learn. Similarly, over a third of all respondents (34.1%) felt that CWDs should not go to school. These finding support the theory that negativity arising from having an impairment is a potential barrier to education for the target beneficiaries.
- **Poverty amongst households of girls with disabilities:** Findings from table 16 suggest more than double the number of girls from poor households in the intervention group attend school less than half the time compared to the control group. Similarly, in the poorest households, almost double the number of GWDs have to miss school when menstruating when compared to girls without disabilities. This could be as a result of poor households being unable to afford sanitary pads coupled with poor infrastructure at schools where toilets are not adapted for disabilities indicating that poverty amongst households of GWDs is indeed a barrier to girls' learning and education.

One aspect of the programme where project activities do not adequately address the barriers identified through the ToC concerns the ability of teachers to educate learners with respect to improving literacy and numeracy learning outcomes. Whilst CSU plans to train teachers on inclusive education practises and will support students with school fees, transportation and infrastructure adaptation to encourage higher levels of attendance, if the teachers are not adequately trained in pedagogical methods and teaching techniques, or if they do not understand the subject matter themselves, the ability of the CSU programme to affect learning outcomes is extremely limited. Therefore, one key barrier which is currently not being addressed through the project activities is teaching ability within schools. All other barriers are being addressed to an extent - with the caveat that this project can only contribute so much to overcoming such fundamental barriers to education of CWD.

4 Key Outcome Findings

4.1 Outcome 1: Learning

This section presents the key findings on the learning outcomes.

A key component of the Baseline study is the administration of Early Grade Reading Assessments (EGRA), Early Grade Maths Assessments (EGMA), Secondary Reading Assessments (SeGRA) and Secondary Maths Assessments (SeGMA). The details of what each test entails are described in the tables that follow, along with a list of which learners were assessed in each test and sub-task and how the subtask was scored. Further details on learning test design and piloting can be found in Annex 9.

TABLE 17: EGMA SUBTASKS DESCRIPTIONS AND SCORING CRITERIA

Early Grade Math Assessment			
Subtask Name	**Subtask Description**	**Who Took This Subtask**	**Scoring**
Number Identification	Identify and name single, double and triple digit whole numbers	P3-P6	Correct number of numbers identified out of 20 possible numbers

Number Discrimination	Identify the larger number of two whole single, double or triple digit numbers	P3-P6	Correct number of questions answered out of 7 possible questions
Missing Numbers	Identify the pattern and missing number in a series	P3-P6	Correct number of questions answered out of 8 possible questions
Addition	Add single, double and triple digit numbers	P3-P6	Correct number of questions answered out of 10 possible questions
Subtraction	Subtract single, double and triple digit numbers	P3-P6	Correct number of questions answered out of 10 possible questions
Number (Word) Problems	Solve number (word) problems using addition, subtraction, multiplication and division	P3-P6, P7, S1-S3	Correct number of questions answered out of 4 possible questions

TABLE 18: EGRA SUBTASK DESCRIPTIONS AND SCORING CRITERIA

Early Grade Reading Assessment			
Subtask Name	**Subtask Description**	**Who Took This Subtask**	**Scoring**
Letter sounds	Identify the sound of letters in the English alphabet	P3-P6	Correct number of letters identified out of 26 possible letters
Invented word reading	Phonetically pronounce a series of 3-letter non-words	P3-P6	Correct number of words identified out of 20 possible words
Oral reading fluency	Read a short text aloud	P3-P6	Correct number of words read in a 103-word story*
Reading comprehension	Answer literal and inferential comprehension questions about the story	P3-P6, P7, S1-S3	Correct number of questions answered out of 5
Listening comprehension	Listen to a short text read aloud and answer literal and inferential comprehension questions about it	P3-P6	Correct number of questions answered out of 5

**Analysis for this story was capped at 100 words to determine an aggregate score.*

TABLE 19: SEGMA SUBTASK DESCRIPTION AND SCORING CRITERIA

Secondary Grade Math Assessment			
Subtask Name	**Subtask Description**	**Who Took This Subtask**	**Scoring**
Subtask 1	Complete a series of multiplication, division, percentage, fraction, measurement, perimeter, area and volume math problems	P5-P6, P7, S1-S3	1 point for each correct answer out of 15 possible points

Subtask 2	Complete a series of simple algebraic equations	P7, S1-S3	1 point for each correct answer out of 8 possible points
Subtask 3	Answer questions about a pie chart and complete word problems using knowledge of algebra, multiplication and division	P7, S1-S3	1 point for each correct answer out of 7 possible points

TABLE 20: SEGRA SUBTASK DESCRIPTION AND SCORING CRITERIA

Secondary Grade Reading Assessment			
Subtask Name	**Subtask Description**	**Who Took This Subtask**	**Scoring**
Subtask 1	Read a fiction passage and answer a set of closed comprehension questions	P5-P6, P7, S1-S3	1 point for each correct answer out of 10 possible points
Subtask 2	Read a non-fiction passage and answer a set of closed comprehension questions	P7, S1-S3	1 point for each correct answer out of 13 possible points
Subtask 3	Write a story about a time you helped someone else	P7, S1-S3	Scored on a rubric from 1-6 points (1 beginning, 6 exceptional) against 7 criteria (ideas, organisation, voice, word choice, fluency, conventions, presentation)

In table 21 to table 26 below, learner results are summarised for literacy and numeracy assessments and disaggregated by intervention and control group. Results are grouped by grade level cluster, assessment type and treatment category. Analysis was done following the Fund Manager's guidelines for mean and standard deviation calculations. Aggregate scores were calculated and weighted following the recommended procedure. Depending on the assessments a child took, the following procedure was undertaken:

- The number of items a child answered correctly in each subtask was counted.
- This was then divided this by the number of total items in each subtask.
- The scores were then weighted for each subtask. For example, a child in P3-P4 was assessed using the EGRA, which had a total of 5 subtasks. 100/5 = 20 points (or a 20% weight) per subtask.
- The number of items correct per subtask was computed against the weight (20%) for each subtask.
- The weighted scores for each subtask were then added up to get the total weighted score for each assessment the child took.
- This process was repeated for each assessment and grade level category.

In the series of tables below, the weighted group mean scores are presented for each assessment for children who took the test in each grade level. They are broken down further by intervention and control group. Finally, the standard deviation in the intervention group is included in the far-right column.

table 21, table 22 and table 23 below outline the EGMA and SeGMA results disaggregated by grade and sample group.

TABLE 21: P3-P4 NUMERACY (EGMA ONLY)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 3*	44.4	56.2	23.7
Primary 4*	49.9	66.9	25.0

*This group was given the complete EGMA only.

TABLE 22: P5-P6 NUMERACY (EGMA AND SEGMA SUBTASK 1)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 5*	58.7	65.7	20.3
Primary 6*	61.2	64.7	17.8

*This group was given the complete EGMA and SEGMA subtask 1.

TABLE 23: P7, S1-S3 NUMERACY (EGMA WORD PROBLEMS SUBTASK AND SEGMA COMPLETE)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 7*	36.7	37.4	11.7
Senior 1*	53.8	52.2	24.6
Senior 2*	50.3	48.3	13.1
Senior 3*	71.5	60.7	40.3

*This group was given EGMA subtask 6 (word problems) and the complete SEGMA.

In the EGMA and SeGMA assessments, intervention group children generally performed worse than the control group across all primary grade levels from Primary 3 to Primary 7. The difference in mean scores for Primary 7 learners in the intervention and control groups was small at only 0.7 points.

Learners in Senior 1 in the intervention group performed better than learners in the control group by 1.6 points. Learners in Senior 2 in the intervention group performed better than learners in the control group, by 2 points on average. Intervention group learners in Senior 3 performed significantly better than control group learners by 10.8 points. It is important to note that the sample size for learners in Senior 3 was extremely small, possibly leading to the large differences in results due to the performance of only one or two learners in the sample.

The differences between intervention and control outcomes for learners in Primary 3-7 and Senior 1-3 are statistically significant. There were no ceiling or floor effects observed in the numeracy assessments administered.

Average performance increases as expected by grade level for learners in each assessment cluster in primary for both intervention and control groups in P3-P4, P5-P6; however, this trend does not continue with learners in Primary 7, who show a drop in scores from learners in Primary 6. This could be due to the more difficult assessment administered to Primary 7 learners, which included a secondary-level assessment subtask. Trends for learners in Senior 1 to Senior 3 show an expected rise in mean scores, except for the control group in Senior 2, which performs worse than the control group in Senior 1.

table 24, table 25 and table 26 below outline the EGRA and SeGRA results disaggregated by grade and sample group.

TABLE 24: LITERACY (EGRA ONLY)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 3*	26.2	36.6	24.2
Primary 4*	29.5	46.9	24.2

*This group was given the complete EGRA.

TABLE 25: P5-P6 LITERACY (EGRA AND SEGRA SUBTASK 1)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 5*	36.2	49.2	20.3
Primary 6*	39.85	58.1	22.2

*This group was given the complete EGRA and SeGRA subtask 1.

TABLE 26: P7, S1-S3 LITERACY (EGRA ORF+RC AND SEGRA COMPLETE)

Grade	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
Primary 7*	37.7	43.1	13.9
Senior 1*	50.9	48.4	14.9
Senior 2*	59.3	57.8	13
Senior 3*	69.5	55.8	0.64

*These grades were given the EGRA oral reading fluency and reading comprehension subtasks and the complete SeGRA.

In the EGRA and SeGRA assessments, intervention group children generally performed notably worse than the control group across all primary grade levels from Primary 3 to Primary 7. However, students in the intervention group in Senior 1, Senior 2 and Senior 3 performed better than students in the control group. In Senior 1 and Senior 2, the difference in mean scores was small at 2.5 and 1.5, respectively. However, in Senior 3, the difference in mean scores between the intervention and control groups was large, with intervention group learners outperforming control group learners by 13.7 points. As with the numeracy scores, this is likely a result of the small sample size in Senior 3.

Whilst the differences between intervention and control outcomes for learners in Primary 3-7 and Senior 1 and Senior 2 are statistically significant, the differences in performance amongst students in Senior 3 are not. The sample size for learners in Senior 3 was extremely small, likely leading to the large differences in results due to the performance of only one or two learners in the sample. There were no ceiling or floor effects observed in the literacy assessments administered.

Notably, average performance increases as expected by grade level for learners in each assessment cluster in primary for both intervention and control groups (e.g. P3-P4, P5-P6); however, this trend does not continue for learners in Primary 7, probably due to the difficulty of the SeGRA assessment administered to the Primary 7 students. Results for students from Senior 1 to Senior 3 show positive progression across grade levels in both the intervention and control groups, except for the control group in Senior 3, which shows a slight drop in scores from Senior 2 learners. As previously highlighted, this is likely due to the small sample size.

In the Table 27 and Table 28 below, average scores are presented for the literacy and numeracy assessments by grade cluster and disability type for learners in the intervention group. Disability categories are aligned to the Washington Group classification structure and were confirmed for each child assessed during the baseline.

TABLE 27: NUMERACY SCORES BY DISABILITY TYPE

Grade	Mean scores EGMA/SeGMA Intervention group mean scores by disability type		
	P3-P4	P5-P6	P7-S3
Difficulty hearing	58.5	57.5	42
Difficulty seeing	61.3	64.9	42.3
Physical difficulty	39.7	52.9	47.5
Intellectual difficulty	40.4	57.8	39.6
Difficulty communicating	47.3	76.9	18.8
Difficulty with self-care	16	44.4	44.9
Multiple difficulties	0	43.2	47.1

TABLE 28: LITERACY SCORES BY DISABILITY TYPE

Grade	Mean scores EGRA/SEGRA Intervention group mean scores by disability type		
	P3-P4	P5-P6	P7-S3
Difficulty hearing	33.8	47.2	50.3
Difficulty seeing	43.3	40.3	45.2
Physical difficulty	18.5	41.2	43.8
Intellectual difficulty	21.3	23.1	46.7
Difficulty communicating	26.2	47.1	0
Difficulty with self-care	11.6	33.4	20
Multiple difficulties	0	21.1	32.8

Learners with identified difficulties in self-care performed the worse on average in the P3-P4 cluster in both numeracy and literacy assessments, the worst in the P5-P6 cluster in numeracy, and the worst in the P7-S3 cluster in literacy. Learners with multiple disabilities performed worse on average in the P5-P6 cluster in literacy. Learners with difficulties communicating in the P7-S3 cluster performed the worst on average in numeracy.

Learners with hearing and visual disabilities performed the best on average in the P3-P4 cluster in literacy and numeracy. Learners with hearing disabilities performed the best on average in the P5-P6 and P7-S3 clusters in literacy. Learners with difficulties communicating performed the best on average in the P5-P6 cluster in numeracy, while learners with physical disabilities performed the best on average in literacy in the P7-S3 cluster.

Generally, students with visual, physical, intellectual and multiple disabilities demonstrated a range of performance across grades in both literacy and numeracy assessments, with no clear consistency in performance.

At baseline, it is not possible to tell whether a learner's disability affects their overall performance on the assessments administered. Analysis at that level will be undertaken at midline and end line and must be further explained and confirmed with ongoing monitoring data collected by CSU throughout the programme.

In the Table 29 below, the mean literacy and numeracy scores for the literacy and numeracy assessments administered across each grade level cluster are presented. From P3 to P6, control school students clearly out-perform intervention school students by significant margins. Mean results for students in P7 –S3 in intervention and control schools demonstrate a narrower margin, with less than 2 points difference on average. There is positive grade level progression in mean scores from P3-P4 to P5-P6 in both literacy and numeracy assessments, and for P7-S3 students in the intervention group for literacy assessments. P7-S3 results for control group learners in the literacy assessment and for both the intervention and control group in the numeracy assessment show a drop in performance due to the greater difficulty of these assessments for students.

TABLE 29: MEAN LITERACY AND NUMERACY SCORES BY CLASS SUBGROUP

Grade	Mean scores Intervention group and Control group			
	EGRA/SeGRA		EGMA/SeGMA	
	Intervention	Control	Intervention	Control
P3-P4	28.1	42.7	47.5	62.5
P5-P6	37.9	53.2	59.9	65.3
P7-S3	45.0	46.8	42.6	41.3

In Table 30 and Table 31 below, numeracy results demonstrating gaps in key skills are shown by subtask for each grade level cluster (P3-P4, P5-P6, P7-S3). The diagnosis of gaps in numeracy skills for each subtask were divided into bands of achievements as follows:

- Non-learner: 0% of items
- Emergent learner: 1%-40% of items
- Established learner: 41%-80% of items
- Proficient learner: 81%-100% of items

In Table 30, learners in P3 and P4 demonstrate a logical progression from emergent to proficient across subtasks of increasing difficulty. A large percentage of both P3 and P4 learners performed well on the number identification and discrimination subtasks. P3 learners generally performed at non-learner or emergent learner status on more complex subtasks like missing number, addition, subtraction and word problems. Quite a number of P3 learners performed at established levels on the addition, subtraction and word problems subtasks; few performed at proficient levels on any of the higher-level subtasks. P4 learners demonstrated similar progression, with fewer learners ranking in the non-learner category across all subtasks. More P4 learners performed at emergent and established levels in subtasks of greater complexity such as missing number, addition, subtraction and word problems. A greater number of learners in P4 also performed at proficient levels in these subtasks. The only statistically significant difference between treatment and control learners is found with P4 established learners in the addition subtask and P4 emergent learners in the subtraction subtask where the treatment group were found to be performing significantly better than the control group on both occasions.

TABLE 30: FOUNDATIONAL NUMERACY SILLS GAPS

Categories	Grade	P3-P4 EGMA											
		Subtask 1		Subtask 2		Subtask 3		Subtask 4		Subtask 5		Subtask 6	
		lumber Identificatio		umber Discriminatic		Missing Numbers		Addition		Subtraction		Word problems	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0%	p-value	NA		NA		NA		NA		NA		NA	
	P3	3.70%	0.00%	0.00%	3.70%	44.40%	18.50%	11.10%	0.00%	26%	3.7%	37.00%	11.20%
	p-value	NA		NA		NA		NA		NA		NA	
	P4	2.70%	0.00%	2.70%	2.60%	21.60%	2.60%	16.20%	0.00%	14%	5.3%	24.30%	2.60%
Emergent learner 1%-40%	p-value	0.094		NA		0.225		0.559		0.307		NA	
	P3	29.60%	14.81%	14.80%	0.00%	40.70%	55.60%	37.00%	25.90%	48%	33.3%	11.10%	25.90%
	p-value	NA		NA		0.6		0.148		0.03**		NA	
	P4	21.60%	2.63%	8.10%	0.00%	45.90%	44.70%	24.30%	10.50%	41%	18.4%	24.30%	7.90%
Established learner 41%-80%	p-value	0.285		1		0.667		0.842		0.279		0.446	
	P3	18.50%	11.11%	29.60%	15.00%	11.10%	26.00%	51.90%	22.20%	26%	33.3%	33.30%	48.10%
	p-value	0.712		0.25		0.88		0.048		0.283		0.345	
	P4	24.30%	5.26%	46%	16%	24.30%	42.00%	46%	39.5%	43%	36.8%	29.70%	68.40%
Proficient learner 81%-100%	p-value	0.863		0.855		NA		NA		NA		NA	
	P3	48.20%	74.07%	55.60%	81.00%	3.70%	0.00%	0.00%	51.90%	0%	29.6%	18.50%	14.80%
	p-value	0.154		0.747		0.846		0.326		NA		NA	
	P4	51.40%	92.11%	43.20%	81.60%	8.10%	11.00%	13.50%	50.00%	3%	39.5%	21.60%	21.10%

*NA implies that the p-value cannot be computed because one group has no learners, i.e. n=0, or the standard deviation for both groups are all = 0 or the scores are all 0%. **p-value is statistically significant to the <0.05 level.*

In the Table 31 below, learners in P5 and P6 also demonstrate a logical progression from emergent to proficient across subtasks of increasing difficulty. A large percentage of both P5 and P6 learners performed well on the number identification and discrimination subtasks. P5 learners generally performed at emergent or established learner status on more complex subtasks like missing number, addition, subtraction and word problems. Quite a number of P5 learners performed at established levels on the addition, subtraction and word problems subtasks, with some performing at proficient levels on the addition and word problem subtasks. They performed the worst on the subtraction subtask. P6 learners demonstrated similar progression, with very few learners ranking in the non-learner category across all EGRA subtasks. More P6 learners performed at established and proficient levels in subtasks of greater complexity such as missing number, addition, subtraction and word problems. In both P5 and P6, the majority of learners performed at emergent status on SeGMA subtask 1, with no learners demonstrating proficiency in this subtask. Statistically significant findings were identified with the number identification subtask for those P5 learners who fell in the emergent and proficient categories.

TABLE 31: FOUNDATIONAL NUMERACY SKILLS GAP

Categories	Grade	P5-P6 EGMA/SeGMA Subtask 1 only													
		Subtask 1		Subtask 2		Subtask 3		Subtask 4		Subtask 5		Subtask 6		SeGMA Subtask 1	
		Number Identification		Number Discrimination		Missing Numbers		Addition		Subtraction		Word problems		Advanced multiplication, division etc.	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0%	p-value	NA		NA		NA		NA		NA		NA		NA	
	P5 Total	5.97%	1.45%	5.97%	1.45%	13.43%	5.80%	5.97%	1.45%	10.45%	4.35%	8.96%	2.90%	32.84%	18.84 %
	p-value	NA		NA		NA		NA		NA		NA		NA	
	P6 Total	1.72%	1.79%	1.72%	1.79%	8.62%	5.36%	5.17%	1.79%	6.90%	1.79%	6.90%	5.36%	15.52%	8.93%
Emergent learner 1%-40%	p-value	0.012**		0.423		0.178		0.888		0.28		NA		0.189	
	P5 Total	4.48%	2.90%	4.48%	1.45%	22.39%	27.54%	14.93%	7.25%	28%	14.5%	8.96%	8.70%	67.16%	76.81 %
	p-value	NA		0.5		0.845		0.116		0.714		NA		0.21	
	P6 Total	6.90%	0.00%	3.45%	3.57%	39.66%	35.71%	5.17%	5.36%	26%	26.8%	17.24 %	12.50 %	81.03%	78.57 %
Established learner 41%-80%	p-value	0.976		0.446		0.869		0.624		0.362		0.849		NA	
	P5 Total	17.91%	15.94%	5.97%	15.94%	44.78%	46.38%	43.28%	34.78%	51%	63.8%	59.70 %	52.17 %	0.00%	4.35%
	p-value	0.731		0.537		0.097		1		0.556		0.946		0.487	
	P6 Total	6.90%	16.07%	14%	14%	43.10%	46.43%	34%	41.1%	52%	55.4%	50.00 %	48.21 %	3.45%	12.50 %
Proficient learner 81%-100%	p-value	0.008**		0.156		0.363		0.512		0.51		NA		NA	
	P5 Total	71.64%	79.71%	83.58%	81.16%	19.40%	20.29%	35.82%	56.52%	10%	17.4%	22.39 %	36.23 %	0.00%	0.00%
	p-value	0.635		0.714		0.763		0.468		0.653		NA		NA	
	P6 Total	84.48%	82.14%	81.03%	80.36%	8.62%	12.50%	55.17%	51.79%	16%	16.1%	25.86 %	33.93 %	0.00%	0.00%

*NA implies that the p-value cannot be computed because one group has no learners, i.e. n=0, or the standard deviation for both groups are all = 0 or the scores are all 0%. **p-value is statistically significant to the <0.05 level.*

Table **32** below, learners from P7 to S3 demonstrate a logical progression from emergent to established across subtasks of increasing difficulty; few learners demonstrated proficiency on any subtask except word problems in the EGMA. Nearly all P7-S3 learners performed well on the word problems subtask, scoring at established and proficient levels. P7 learners largely performed at emergent status on the SeGMA subtasks, with a few learners performing at established levels on SeGMA subtask 1 and 2; almost no P7 learners demonstrated proficient status on any SeGMA subtask. S1 and S2 learners generally performed at established status on SeGMA subtask 1 and at emergent status on SeGMA subtask 2. The majority of S2 learners performed at non-learner or emergent status on SeGRA subtask 3. Half of S3 treatment learners performed at non-learner status on SeGMA subtasks 1, 2 and 3; the other half of S3 treatment learners and all of S3 control learners performed at established status on SeGMA subtask 2, following the

same pattern but performing at emergent status on SeGMA subtask 3. Almost no learners from S1-S3 performed at proficient level in any SeGMA subtask. There was only one statistically significant finding in this analysis, where more S2 treatment learners performed at established status on EGMA subtask 6.

TABLE 32: NUMERACY SKILLS GAP FOR P7, S1-S3

		P7-S3 EGMA							
Categories	Grade	EGMA Subtask 6		SeGMA Subtask 1		SeGMA Subtask 2		SeGMA Subtask 3	
		Word problems		Advanced multiplication, division etc.		Missing Numbers		Addition	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0%	p-value	NA		NA		NA		NA	
	P7	0.00%	0.00%	3.64%	0.00%	25.45%	16.98%	85.45%	79.25%
	p-value	NA		NA		NA		NA	
	S1	0.00%	0.00%	11.11%	0.00%	22.22%	0.00%	55.56%	14.29%
	p-value	NA		NA		NA		NA	
	S2	0.00%	6.25%	4.76%	6.25%	14.29%	25.00%	52.38%	56.25%
	p-value	NA		NA		NA		NA	
	S3	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	50.00%	0.00%
Emergent learner 1%-40%	p-value	NA		0.423		0.432		0.337	
	P7	1.82%	3.77%	76.36%	71.70%	52.73%	60.38%	12.73%	20.75%
	p-value	NA		0.609		0.287		0.062	
	S1	0.00%	0.00%	33.33%	28.57%	55.56%	57.14%	33.33%	57.14%
	p-value	NA		0.074		0.071		0.81	
	S2	4.76%	0.00%	23.81%	18.75%	38.10%	31.25%	42.86%	37.50%
	p-value	NA		NA		NA			
	S3	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%	100.00%
Established learner 41%-80%	p-value	0.951		0.288		0.149		NA	
	P7	52.73%	47.17%	20.00%	28.30%	20.00%	22.64%	1.82%	0.00%
	p-value	0.423		0.261		1		1	
	S1	33.33%	57.14%	56%	71%	11.11%	28.57%	11%	29%
	p-value	0.011**		0.648		0.427		NA	
	S2	47.62%	37.50%	71.43%	68.75%	33.33%	37.50%	4.76%	6.25%
	p-value	5		NA				NA	
	S3	50.00%	0.00%	0%	100%	50.00%	100.00%	0%	0%

Proficient learner 81%-100%	p-value	NA		NA		NA		NA	
	P7	45.45%	49.06%	0.00%	0.00%	1.82%	0.00%	0.00%	0.00%
	p-value	NA		NA		NA		NA	
	S1	66.67%	42.86%	0.00%	0.00%	11.11%	14.29%	0.00%	0.00%
	p-value	NA		NA		0.423		NA	
	S2	47.62%	56.25%	0.00%	6.25%	14.29%	6.25%	0.00%	0.00%
	p-value	NA		NA		NA		NA	
	S3	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

*NA implies that the p-value cannot be computed because one group has no learners, i.e. n=0, or the standard deviation for both groups are all = 0 or the scores are all 0%. **p-value is statistically significant to the <0.05 level.*

In the foundational literacy table below, learners in P3 and P4 demonstrate a logical progression from non-learner to established across subtasks of increasing difficulty. A large percentage of both P3 and P4 learners performed well on the letter sound subtask. The greatest percentage of P3 and P4 learners performed at non-learner status on the invented word subtask, although the other learners were fairly evenly distributed across emergent and established categories in this subtask. The majority of P3 learners were rated as non-learners in the oral reading fluency and comprehension subtasks; P4 learners also performed poorly at non-learner status in the comprehension subtask. More P4 learners performed at emergent levels in the oral reading fluency and comprehension subtasks than children in P3. However, very few learners in either grade ranked at established or proficient levels in reading or comprehension subtasks. The statistically significant differences are found between treatment and control learners where P4 emergent control group learners performed better than the treatment group in the invented words subtask and with P4 established learners where the control group performed better than the treatment group in the reading comprehension subtask.

TABLE 33: FOUNDATIONAL LITERACY SKILLS GAPS

Categories	Grade	P3-P4 EGRA									
		Subtask 1		Subtask 2		Subtask 3		Subtask 4		Subtask 5	
		Letter Sound Identification		Invented Words		Oral Reading Fluency		Reading Comprehension		Listening Comprehension	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0% (0-5 wpm)	p-value	NA		NA		1		NA		NA	
	P3	11.10%	0.00%	40.70%	19.00%	51.90%	30.00%	74.10%	55.60%	40.7%	7.0%
	p-value	NA		NA		0.63		NA		NA	
	P4	8.10%	2.63%	29.70%	5.00%	35.10%	5.00%	62.20%	28.90%	37.8%	8.0%
Emergent learner	p-value	0.309		0.36		0.693		0.599		0.547	
	P3	37.00%	37.00%	18.50%	25.90%	40.70%	48.10%	18.50%	25.90%	33.3%	51.9%
	p-value	0.974		0.033**		0.222		0.877		0.465	

1%-40% (6-44 wpm)	P4	43.20%	31.60%	24.30%	26.30%	45.90%	52.60%	27.00%	39.50%	37.8%	50.0%
Established learner 41%-80% (44-80 wpm)	p-value	0.8		0.463		0.053**		0.633		0.719	
	P3	29.60%	40.70%	22.20%	44.40%	3.70%	18.50%	7.40%	14.80%	22.2%	37.0%
	p-value	0.733		0.115		0.139		0.015**		0.757	
	P4	32.40%	34.21%	24%	47%	13.50%	32.00%	8.1%	26.3%	24.3%	39.0%
Proficient learner 81%-100% (81-100 wpm)	p-value	0.585		0.473		NA		NA		NA	
	P3	22.20%	22.20%	18.50%	11.10%	3.70%	3.70%	0.00%	3.70%	3.7%	3.7%
	p-value	0.772		0.003**		0.66		NA		NA	
	P4	16.20%	31.60%	21.60%	21.60%	5.40%	10.50%	2.70%	5.30%	0.0%	2.6%
NA implies that the p-value cannot be computed because one group has no learners i.e. n=0, or the standard deviations for both groups are all = 0 or the scores are all 0%. **P value is statistically significant to the <0.05 level											

In Table 34 below, learners in P5 and P6 demonstrate a logical progression from non-learner to proficient status across subtasks of increasing difficulty. A large percentage of both P5 and P6 learners performed at emergent or established levels on the letter sound, invented word and oral reading fluency subtasks. The greatest percentage of P5 and P6 learners performed at non-learner and emergent status on the reading comprehension subtask and emergent or established on the listening comprehension subtask. However, very few learners in either grade ranked at proficient levels in any comprehension subtask. Most learners performed at emergent status in SeGRA subtask 1. Many also performed at non-learner status on this subtask. None were able to demonstrate proficiency in this subtask. Five statistically significant differences can be found (i) between P5 established learners where the control group performed significantly better than treatment in the oral reading fluency subtask; (ii) between P6 emergent learners in the listening comprehension subtask, where treatment learners outperformed control learners; (iii) between P5 established learners in the listening comprehension subtask, where control learners performed significantly better than treatment learners; (iv) between P6 emergent learners in the SeGRA subtask 1, where treatment learners outperform control learners; and (v) between P5 established learners in the SeGRA subtask 1, where control learners outperform treatment learners.

TABLE 34: LOGICAL PROGRESSION FOR A NON-LEARNER TO BE PROFICIENT ACROSS LITERACY SUBTASK WITH INCREASING DIFFICULTY

		P5-P6 EGRA											
Categories	Grade	Subtask 1		Subtask 2		Subtask 3		Subtask 4		Subtask 5		SeGRA	
		Letter sound Identification		Invented Words		Oral Reading Fluency		Comprehension		Listening Comprehension		Subtask 1	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0% (0-5 wpm)	p-value	NA		NA		0.669		NA		NA		NA	
	P5 Total	5.97%	1.45%	17.91%	2.90%	19.40%	1.45%	34.33%	15.94%	16.4%	2.9%	32.84%	24.64%
	p-value	NA		NA		NA		NA		NA		NA	
	P6 Total	5.17%	0.00%	17.24%	1.79%	13.79%	0.00%	31.03%	1.79%	10.3%	0.0%	25.86%	17.86%
Emergent learner 1%-40% (6-44 wpm)	p-value	0.233		0.312		0.271		0.664		0.522		0.23	
	P5 Total	49.25%	39.13%	23.88%	26.09%	41.79%	24.64%	37.31%	34.78%	46.3%	37.7%	64.18%	66.67%
	p-value	0.18		0.825		0.84		0.234		0.009**		0.039**	
	P6 Total	43.10%	30.36%	27.59%	8.93%	34.48%	10.71%	24.14%	39.29%	43.1%	30.4%	67.24%	64.29%
Established learner 41%-80% (44-80 wpm)	p-value	0.157		0.875		0.029**		0.41		0.035**		0.025**	
	P5 Total	29.85%	36.23%	40.30%	23.19%	34.33%	57.97%	22.39%	43.48%	31.3%	53.6%	2.99%	8.70%
	p-value	0.664		0.124		0.852		0.548		0.742		0.272	
	P6 Total	41.38%	44.64%	31.0%	39.3%	41.4%	58.9%	36.2%	37.5%	39.7%	60.7%	6.90%	16.07%
Proficient learner 81%-100% (81-100 wpm)	p-value	0.708		0.883		0.227		NA		NA		NA	
	P5 Total	14.93%	23.19%	17.91%	47.83%	4.48%	15.94%	5.97%	5.80%	6.0%	5.8%	0.00%	0%
	p-value	0.814		0.406		0.175		NA		NA		NA	
	P6 Total	10.34%	25.00%	24.14%	50.00%	10.34%	30.36%	8.62%	21.43%	6.9%	8.9%	0.00%	1.79%

NA implies that the p-value cannot be computed because one group has no learners i.e. n=0, or the standard deviations for both groups are all = 0 or the scores are all 0%. **P value is statistically significant to the <0.05 level

In the next literacy table (Table 35), learners in P7 to S3 demonstrate a logical progression from emergent to proficient status across subtasks of increasing difficulty. A large percentage of P7-S3 learners performed at established or proficient levels on the oral reading fluency subtask; more performed at emergent and established level on reading comprehension. Most P7 learners performed at emergent status on SeGRA subtasks 1, 2 and 3. Most S1 learners performed at emergent or established status across SeGRA subtasks 1 and 2, while the majority performed at emergent or established levels in SeGRA subtask 3. Most S2 learners performed at emergent or established levels across all 3 SeGRA subtasks. Half of the S3 treatment students tested performed at non-learner status on SeGRA subtasks 1, 2, and 3, with the other half performing at proficient level on subtask 1 and emergent level on subtasks 2 and 3. S3 control learners all performed at established status on SeGRA subtasks 1 and 2 and at emergent status on subtask 3. Very few learners from P7-S2 performed at proficient levels in any SeGRA subtask. There are no statistically significant differences between the control and treatment groups.

TABLE 35: LITERACY SKILLS GAP FOR P7, S1 - S3

Categories	Grade	P7-S3 EGRA ORF+ RC/ SeGRA Complete									
		EGRA Subtask 3		EGRA Subtask 4		SeGRA		SeGRA		SeGRA	
		Oral Reading Fluency		Comprehension		Subtask 1		Subtask 2		Subtask 3	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
Non-learner 0% (0-5 wpm)	p-value	NA		NA		NA		NA		NA	
	P7	3.64%	0.00%	7.27%	0.00%	14.55%	15.09%	18.18%	22.64%	27.3%	18.9%
	p-value	NA		NA		NA		NA		NA	
	S1	0.00%	0.00%	22.22%	0.00%	11.11%	0.00%	11.11%	0.00%	11.1%	0.0%
	p-value	NA		NA		NA		NA		NA	
	S2	0.00%	0.00%	0.00%	6.25%	0.00%	6.25%	0.00%	6.25%	4.8%	6.3%
	p-value	NA		NA		NA		NA		NA	
	S3	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	50.0%	0.0%
Emergent learner 1%-40% (6-44 wpm)	p-value	0.948		0.535		0.345		0.956		0.865	
	P7	14.55%	13.21%	34.55%	18.87%	63.64%	64.15%	80.00%	71.70%	56.4%	58.5%
	p-value	NA		0.423		1		0.196		0.528	
	S1	0.00%	0.00%	33.33%	42.86%	44.44%	57.14%	66.67%	85.71%	44.4%	71.4%
	p-value	NA		0.516		0.226		0.752		0.079	
	S2	0.00%	0.00%	14.29%	37.50%	28.57%	31.25%	66.67%	68.75%	42.9%	43.8%
	p-value	NA		NA		NA		NA		NA	
	S3	0.00%	0.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.0%	100.0%
Established learner 41%-80% (44-80 wpm)	p-value	0.143		0.404		0.314		NA		0.142	
	P7	41.82%	26.42%	43.64%	54.72%	20.00%	20.75%	1.82%	5.66%	16.4%	20.8%
	p-value	0.396		0.052		0.809		0.667		0.183	
	S1	22.22%	42.86%	44%	42.9%	44.4%	42.9%	22.2%	14.3%	44.4%	28.6%
	p-value	0.051		0.81		0.77		0.691		0.289	
	S2	28.57%	25.00%	42.86%	37.50%	61.90%	50.00%	33.33%	25.00%	47.6%	50.0%
	p-value	NA		NA		NA		NA		NA	
	S3	50.00%	0.00%	50%	0%	0.00%	100.00%	50%	100%	50.0%	0.0%
Proficient learner 81%-100% (81-100 wpm)	p-value	0.37		NA		NA		NA		NA	
	P7	40.00%	60.38%	14.55%	26.42%	1.82%	0.00%	0.00%	0.00%	0.0%	1.9%
	p-value	0.16		NA		NA		NA		NA	
	S1	77.78%	57.14%	0.00%	14.29%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%
	p-value	1		NA		0.5		NA		NA	
	S2	71.43%	75.00%	42.86%	18.75%	9.52%	12.50%	0.00%	0.00%	4.8%	0.0%
	p-value	NA		NA		NA		NA		NA	
	S3	50.00%	100.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.0%	0.0%

NA implies that the p-value cannot be computed because one group has no learners i.e n=0, or the standard deviations for both groups are all = 0 or the scores are all 0%. **P value is statistically significant to the <0.05 level

4.1.1. Grade Level Achieved Tables and Narrative

The following section presents the 'grade level achieved' by actual baseline grade and age and maps it against the national curriculum. It also examines the implications of the time of data collection on the results. The tables also present a comparison of the results against international learning benchmarks that complement the national level analysis. Though this is difficult to achieve at baseline, a comparison with some international standards found at *ACER-UNESCO Learning Progression Explorer* as proposed by the Fund Manager was attempted.

4.1.2. Grade Level Achieved – Literacy

The table below indicates the grade level achieved for subtasks in the EGRA and SeGRA. Expected performance areas have been aligned to Uganda's national curriculum and the national literacy model for early grade reading. It is important to note that the EGRA oral reading assessment and comprehension tasks were set to Primary 3 international standards. Subtasks 1, 2, and 3 on the SeGRA were set to a Primary 5 reading level and ability against international standards. The grade level achieved recommendations below are fit to purpose in Uganda, with a slower progression of achievement for learners from grade 1 onward; progression is slower than the pace at which learners in other contexts are expected to perform. However, despite this slower pace in the early grades, it is expected that all children should be reading with some degree of fluency and comprehension at least by P3, with corresponding year on year gains thereafter. At this stage, results have not been compared against international learning benchmarks; this comparison will emerge in upcoming midline and endline evaluations. In the analysis presented after this table, grade level achievements are presented for girls in the intervention group that took the EGRA and SeGRA.

TABLE 36: GRADE LEVEL ACHIEVED FOR EGRA AND SEGRA

	Relevant subtasks	Literacy
Grade 1 achieved	Subtasks 1, 2 and 3 (EGRA)	Established in Letter Sound Identification and Invented Word
Grade 2 achieved	Subtasks 3 and 4 (EGRA)	Proficient in Letter Sound Identification and Invented Word
Grade 3 achieved	Subtasks 3 and 4 (EGRA)	Established in Oral Reading Fluency, Emergent in Reading Comprehension
Grade 4 achieved	Subtasks 3 and 4 (EGRA)	Proficient in Oral Reading Fluency, Established in Reading Comprehension
Grade 5 achieved	Subtasks 3 and 4 (EGRA)	Proficient in Oral Reading Fluency and Reading Comprehension
Grade 6 achieved	Subtask 1 (SeGRA)	Established in Comprehension using simple inferences
Grade 7 achieved	Subtask 1 (SeGRA)	Proficient in Comprehension using simple inferences
Senior 1 achieved	Subtask 2 (SeGRA)	Established in Comprehension using complex inferences
Senior 2 achieved	Subtasks 2 and 3 (SeGRA)	Proficient in Comprehension using complex inferences, established in Short Essay construction
Senior 3 achieved	Subtasks 2 and 3 (SeGRA)	Proficient in Comprehension using complex inferences and Short Essay construction

P3 and P4 Grade Level Achieved

As shown in the table below, only 51.8% of P3 intervention girls and 48.6% of the P4 intervention girls tested were either established or proficient in the letter sound identification subtask – an achievement they should have reached by Grades 1 and 2. A total of only 40.7% of P3 girls and 45.9% of P4 girls were either established or proficient in the invented word subtask – an achievement they should have also reached by Grades 1 and 2. According to their grade level targets, by P3 only 3.7% of intervention girls were at least established in oral reading fluency, with 8.5% of them at least emergent in reading comprehension. A total of 3.7% of P3 girls exceeded their grade level target, scoring proficient on the oral reading fluency subtask. According to their grade level targets, by P4 only 5.4% of intervention girls were proficient at oral reading fluency; 8.1% were established in reading comprehension. A total of 2.7% of P4 girls exceeded their grade level target for comprehension, scoring proficient on the subtask.

TABLE 37: P3 AND P4 GRADE LEVEL ACHIEVED IN LITERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status
P3	51.8% established in letter sound identification	P1	Below grade level
	40.7% established in invented words	P1	Below grade level
	3.7% established in oral reading fluency	P3	At grade level
	8.5% emergent in reading comprehension	P3	At grade level
	3.7% proficient in oral reading fluency	P4	Above grade level
P4	48.6% proficient in letter sound identification	P2	Below grade level
	5.4% proficient in oral reading fluency	P4	At grade level
	8.1% established in reading comprehension	P4	At grade level
	2.7% proficient in reading comprehension	P5	Above grade level

P5 and P6 Grade Level Achieved

As shown in the table below, in P5 and P6, 19.4% and 13.8% of girls, respectively, were still non-learners in the oral reading fluency subtask. According to their grade level targets, only 4.4% of P5 intervention girls were proficient in the oral reading fluency subtask, and only 6% were proficient in the comprehension subtask. By the time they reached P6, only 10.3% were proficient in this Grade 5 target for reading, and only 8.6% were proficient in comprehension. According to their grade level targets, only 6.9% of P6 girls were established in their grade level target for comprehension using simple inferences; 25.86% and 67.24% of P6 learners, respectively, were still either non-learners or emergent in this grade level subtask.

TABLE 38: P5 AND P6 GRADE LEVEL ACHIEVED IN LITERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status
P5	19.4% non-learners in oral reading fluency	P3	Below grade level
	4.4% proficient in oral reading fluency	P5	At grade level
	6% proficient in reading comprehension	P5	At grade level
P6	13.8% non-learners in oral reading fluency	P4	Below grade level
	10.3% proficient in oral reading fluency	P5	Below grade level
	8.6% in reading comprehension	P5	Below grade level
	6.9% established in comprehension using simple inferences	P6	At grade level

P7, S1, S2 and S3 Grade Level Achieved

As summarised in the table below, in P7, 14.5% of learners were still below Grade 5 achievement levels in the oral reading fluency subtask, scoring at only an emergent level in this assessment; 41.8% were also far below grade level, scoring at established levels on this subtask. According to their grade level targets, only 1.8% of P7 learners scored at a proficient level in comprehension using simple inferences; 20% and 63.6% were at established and emergent levels, respectively, in this subtask.

In S1, 0% of learners met their grade level target for an established score in comprehension using complex inferences. Instead, 11% of S1 learners were non-learners in this subtask; 44% of S1 learners scored at emergent level. In S2, 0% of learners were proficient in comprehension using complex inferences, their grade level target. Instead, 66.7% were emergent and 33.3% were established.

A total of 47.6% of S2 learners scored at their grade level target of established in short essay construction, while 4.8% scored above grade level expectation at proficient level. In S3, 0% of learners scored at their grade level target of proficient in either comprehension using complex inferences or in short essay construction. Instead, 100% of S3 learners scored below expectation at either non-learner (50%) or established (50%) levels in comprehension and short essay construction.

TABLE 39: P7, S1, S2 AND S3 GRADE LEVEL ACHIEVED IN LITERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status
P7	14.5% emergent in oral reading fluency	P5	Below grade level
	41.8% established	P5	Below grade level
	1.8% proficient in comprehension using simple inferences	P7	At grade level
	20% established in comprehension using simple inferences	P6	Below grade level
	63.6% emergent in comprehension using simple inferences	P5	Below grade level
S1	0% established in comprehension using complex inferences	S1	Below grade level
	11% non-learners in comprehension using complex inferences	S1	Below grade level
	44% emergent in comprehension using complex inferences	S1	Below grade level
S2	0% proficient in comprehension using complex inferences	S2	Below grade level
	66.7% emergent in comprehension using complex inferences	S1	Below grade level
	33.3% established in comprehension using complex inferences	S1	Below grade level
	47.6% established in short essay construction	S2	At grade level
	4.8% proficient in short essay construction	S3	Above grade level
S3	0% proficient in comprehension using complex inferences	S3	Below grade level
	0% proficient in short essay construction	S3	Below grade level
	50% non-learner in comprehension using complex inferences	S1	Below grade level
	50% established in short essay construction	S2	Below grade level

4.1.3. Grade Level Achieved - Numeracy

The Table 40 below indicates the grade level achieved for subtasks in the EGMA and SeGMA. Expected performance areas have been aligned to Uganda's national curriculum. It is important to note that the EGMA subtasks were set to Primary 3 international standards. Subtasks 1, 2, and 3 on the SeGMA were set to a Primary 5 numeracy level and ability against international standards. The grade level achieved recommendations below are fit to purpose in Uganda, with a slower progression of achievement for learners from grade 1 onward; progression is slower than the pace at which learners in other contexts are expected to perform. However, despite this slower pace in the early grades, it is expected that all children should have some degree of basic numeracy skills by at least by P3, with corresponding year on year gains

thereafter. In the analysis presented after this table, grade level achievements are presented for girls in the intervention group that took the EGMA and SeGMA.

TABLE 40: GRADE LEVEL ACHIEVED FOR EGMA AND SEGMA

	Relevant subtasks	Numeracy
Grade 1 achieved	Subtasks 1 and 2 (EGMA)	Proficient in Number Identification and in Quantity Discrimination
Grade 2 achieved	Subtasks 3 and 4 (EGMA)	Proficient in Missing Numbers and Additions
Grade 3 achieved	Subtasks 5 and 6 (EGMA)	Established in Subtraction and Word Problems
Grade 4 achieved	Subtasks 5 and 6 (EGMA)	Proficient in Subtraction and Word Problems
Grade 5 achieved	Subtask 1 (SeGMA)	Established in Advanced Multiplication and Division
Grade 6 achieved	Subtask 1 (SeGMA)	Proficient in Advanced Multiplication and Division
Grade 7 achieved	Subtask 2 (SeGMA)	Established in Algebra
Senior 1 achieved	Subtask 2 (SeGMA)	Proficient in Algebra
Senior 2 achieved	Subtask 3 (SeGMA)	Established in Data Interpretation
Senior 3 achieved	Subtask 3 (SeGMA)	Proficient in Data Interpretation

P3 and P4 Grade Level Achieved

Only 48.2% of P3 intervention girls and 51.4% of the P4 intervention girls tested were proficient in number identification – an achievement they should have reached by Grade 1. Only 3.7% of P3 learners and 8.1% of P4 learners were proficient in the missing numbers subtask – an achievement they should have reached by Grade 2. By P4, only 13.5% of learners were proficient in addition and no P3 learners were proficient in this subtask, despite it being a Grade 2 achievement.

By P3, 26% of learners met the grade level target of established in subtraction. The majority were at emergent status (48%) or non-learner status (26%) in this subtask. A total of 33.3% of P3 learners met the grade level target of established in word problems, while 18.5% scored above the target and reached proficient in this subtask, which was a Grade 4 target. By P4, only 3% of learners met the grade level target of proficient in subtraction; 43% were below target at established level in this subtask, with 41% still at emergent level. Only 21.6% of learners scored proficient in word problems, their grade level target; 29.7% were at established levels in this subtask. In P4, 24.3% of learners were still non-learners in this subtask. This is summarised in the table below.

TABLE 41: P3 AND P4 GRADE LEVEL ACHIEVED IN NUMERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status
P3	48.2% were proficient in number identification	P1	Below grade level
	3.7% proficient in missing numbers	P2	Below grade level
	0% proficient in addition	P2	Below grade level

	26% established in subtraction	P3	At grade level
	33.3% established in word problems	P3	At grade level
	18.5% proficient in word problems	P4	Above grade level
P4	8.1% proficient in missing numbers	P2	Below grade level
	13.5% proficient in addition	P2	Below grade level
	3% proficient in subtraction	P4	At grade level
	43% established in subtraction	P3	Below grade level
	41% emergent in subtraction	P3	Below grade level
	21.6% proficient in word problems	P4	At grade level
	29.7% established in word problems	P4	Below grade level

P5 and P6 Grade Level Achieved

As shown in the table below, in P5 and P6, only 10% and 16% of learners, respectively, met the Grade 4 achievement target for the subtraction subtask; the majority still scored established in this Grade 4 subtask.

In P5, 0% of learners achieved the grade level target of established in advanced multiplication and division; 32.8% of learners were still considered non-learners in this subtask. In P6, 0% of learners reached proficient status on the advanced multiplication and division subtask, which was their grade level target; instead, 81% of P6 learners were still at emergent performance levels on this subtask.

TABLE 42: P5 AND P6 GRADE LEVEL ACHIEVED IN NUMERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status
P5	10% proficient in subtraction	P4	At grade level
	0% established in multiplication and division	P5	Below grade level
P6	16% proficient in subtraction	P4	At grade level
	0% proficient in multiplication and division	P6	Below grade level

P7, S1, S2 and S3 Grade Level Achieved

In P7, only 45.5% of learners reached proficient status on the word problems subtask – a Grade 4 skill. A total of 20% of learners met their grade level target of established in the algebra subtask. A total of 76.4% of P7 learners were still considered emergent in this subtask.

In S1, 0% of learners met their grade level target for a proficient score in algebra; 56% earned an established status with another 33.3% still at emergent status in this subtask. In S2, the majority of learners were still at non-learner (55.6%) or emergent learner (42.9%) status, not meeting their grade level target for data interpretation. Only 4.8% of S2 learners met their grade level target of established in the data interpretation subtask.

In S3, 0% of learners met their grade level target of proficient in data interpretation. Instead, 50% of S3 learners scored as non-learners on this subtask, while the other 50% scored at emergent level on this subtask. This is summarised in the table below:

TABLE 43: P7, S1, S2 AND S3 GRADE LEVEL ACHIEVED IN NUMERACY

Grade	Subtask and Achievement Status	Grade Level Target Should Have Been Achieved By	Status

P7	45.5% proficient in word problems	P4	Below grade level
	20% established in algebra	P7	At grade level
	76.4% emergent in algebra	P7	Below grade level
S1	0% proficient in algebra	S1	Below grade level
	56% established in algebra	S1	Below grade level
	33.3% emergent in algebra	S1	Below grade level
S2	55.6% non-learner in data interpretation	S1	Below grade level
	42.9% emergent in data interpretation	S1	Below grade level
	4.8% established in data interpretation	S2	At grade level
S3	0% proficient in data interpretation	S3	Below grade level
	50% non-learner in data interpretation	S1	Below grade level
	50% emergent in data interpretation	S1	Below grade level

Grade Level Achieved Findings

Overall, learners did not perform up to expectation in any of the designed subtasks or benchmarked performance standards for their grade levels in either literacy or numeracy. This is not due to unrealistic expectations or content that is too difficult for learners to comprehend and complete. Rather, it is due to the overall poor teaching quality and limited learning resources in most schools required to achieve good outcomes. It is important to note that these findings are not surprising in Uganda, given that the majority of learners around the country perform poorly on similar assessments at all levels of the primary and secondary education system. Notably, there is a major crisis in learning in schools and classrooms across Uganda affecting all children – not just those with disabilities.

Improving literacy and numeracy outcomes for children in the GEC-T programme is a critical task, and one that will not be achieved easily. Developing core foundational skills and leveraging that knowledge to develop higher level skills is critical for every learner; clearly the CSU programme must focus on first building these foundational skills in learners and attempting to 'move the middle', meaning a sharp focus on reducing the number of non-learners across all literacy and numeracy subtasks and gradually improving performance for all learners from one outcome level to the next so that all learners meet expected standards of established and proficient levels in their grade level skills.

By the end of the programme, the majority of learners should be able to perform 'in the middle' of expected outcomes for their grade, meaning achieving an established or proficient status in all subtasks for their literacy and numeracy assessments.

To achieve this, disability adapted Teaching and Learning Materials (TLMs) must be made available to schools. This however, this is in itself a challenge as the MoES has agreed to only provide TLMs to specialised schools and as a result, mainstream schools that include CWDs have to find their own adapted materials.

Difference in learning outcomes at grade level

To look at the differences between treatment and control group learning outcomes at grade level the following tables focussed on those EGRA and EGMA tools which were consistent across all grades, with the caveat that the tests were administered at P3 level and so there were ceiling effects in secondary grade learners. To measure the differences between the treatment and control learners who are 'at grade level' or 'above grade level' the scores of those learners found to be at the level of 'established' and 'proficient' learners have been aggregated to compare the percentage of learners able to achieve at least a grade appropriate standard. For this reason, the scores of those learners who were rated as 'non-learners' or 'emergent' were excluded in the following tables.

TABLE 44: DIFFERENCES IN NUMERACY LEARNING OUTCOMES BY GRADE

NUMERACY SCORES			
Subtask 6_Word Problems			
Grade	Established learner and above 41%-100%		
	Treatment	Control	Difference
P3	51.8%	62.9%	11.1%
P4	51.3%	89.5%	38.2%
P5	82.1%	88.4%	6.3%
P6	75.9%	82.1%	6.2%
P7	98.2%	96.2%	-2.0%
S1	100.0%	100.0%	0.0%
S2	95.2%	93.8%	-1.4%
S3	100.0%	100.0%	0.0%
Weighted average across grades	**59.0%**	**67.0%**	**7.0%**

The table above indicates that GWDs in P3 and P4 show larger differences between learning outcomes between treatment and control subgroups than those in the higher grades. This is consistent with findings in subsequent sections of this report. Overall the difference in the weighted average across grades between treatment and control is 7.0%.

TABLE 45: DIFFERENCE IN LITERACY LEARNING OUTCOMES BY GRADE

LITERACY SCORES						
Grade	Subtask 3 _ Oral Reading Fluency			Subtask 4_Reading Comprehension		
	Established learner and above 41%-100% (44 - 100 wpm)			Established learner and above 41%-100% (44 - 100 wpm)		
	Treatment	Control	Difference	Treatment	Control	Difference
P3	7.4%	22.2%	14.8%	7.4%	18.5%	11.1%
P4	18.9%	42.5%	23.6%	10.8%	31.6%	20.8%
P5	38.8%	73.9%	35.1%	28.4%	49.3%	20.9%
P6	51.7%	89.3%	37.6%	44.8%	58.9%	14.1%
P7	81.8%	86.8%	5.0%	58.2%	81.1%	22.9%
S1	100.0%	100.0%	0.0%	44.0%	57.2%	13.2%
S2	100.0%	100.0%	0.0%	85.7%	56.3%	-29.4%

S3	100.0%	100.0%	0.0%	50.0%	0.0%	-50.0%
Weighted average across grades	29.0%	43.0%	15.0%	41.0%	44.0%	3.0%

The table above shows that the differences between treatment and control learners is more pronounced in primary than secondary school for oral reading fluency with the weighted average difference across the grades suggesting 15.0% higher scores for the control group learners. Similarly, for the reading comprehension subtask, the primary learners show lower scores for treatment than control groups. However, the secondary CWD perform better than the children without disabilities. That said, the overall weighted average still has the treatment scores at 3.0% lower than the control group amongst those learners who are established or proficient.

4.2 Subgroup analysis of the Learning Outcome

This section focusses on trends in learning for key subgroups in order to understand the characteristics and barriers associated with the lowest levels of learning. Additionally, the analysis seeks to identify individuals with the lowest learning levels and understand the key characteristics and barriers faced by these individuals.

Table 46, below, highlights the outlier subgroups which are struggling or are excelling in terms of learning. This data helps the project determine what adaptations to design might be needed to ensure inclusion of girls with particular characteristics.

TABLE 46: LEARNING SCORES OF KEY SUBGROUPS

	Average literacy score (aggregate)	Average numeracy score (aggregate)
Characteristics:		
Difficulty hearing	43.8	52.7
Difficulty seeing	42.9	56.2
Physical difficulty	34.5	46.7
Intellectual difficulty	30.4	45.9
Difficulty communicating	24.4	47.7
Difficulty with self-care	21.7	35.1
Multiple difficulties	18.0	30.1

In Table 47 below, aggregate scores by barriers are presented for learners across each grade level cluster. Results are mixed across grades and barriers. It appears that trouble with paying school fees and having to do paid work outside of the home greatly affect scores in literacy and numeracy for most learners across all grades. Time spent traveling to school and self-reported inability to stay focused when things get in the way affected learning outcomes in literacy and numeracy for P5-P6 learners. Being taught in the local language appears to also negatively affect P5-P6 learners' scores in both literacy and numeracy. These outcomes will need to be tracked over time to see how they affect learning – and most notably transitions – during the course of the programme.

TABLE 47: LEARNING SCORES OF KEY BARRIERS

	Average literacy score (aggregate)			Average numeracy score (aggregate)		
Barriers	***P3-P4***	***P5–P6***	***P7-S3***	***P3-P4***	***P5-P6***	***P7-S3***
All girls with disability	28.1	37.9	45.0	47.5	59.9	42.6
Difficult to move around school	34.2	37.0	47.1	54.4	54.7	40.3

Barriers	Average literacy score (aggregate)			Average numeracy score (aggregate)		
	P3-P4	*P5–P6*	*P7-S3*	*P3-P4*	*P5-P6*	*P7-S3*
All girls with disability	28.1	37.9	45.0	47.5	59.9	42.6
Can't easily see at school in order to read	33.1	31.8	51.2	50.2	59.6	42.1
Latrine at school is dirty	32.7	33.8	43.1	42.3	57.8	41.6
Spends more than an hour travelling to/from school	0.0	44.7	47.3	7.7	61.4	32.8
Faces challenges when travelling to/from school	30.3	39.1	48.1	50.2	61.8	45.4
Disagrees teachers make them feel welcome	19.8	39.3	38.6	31.5	66.4	33.4
Was caned at school this year	29.5	36.0	43.1	51.1	60.7	40.5
Agrees teachers missed school within the last week	30.3	40.1	51.3	44.4	58.8	49.5
Taught in local language	19.4	33.7	N/A	36.0	35.9	N/A
Doesn't play sports at school	30.8	35.8	46.1	48.4	60.8	42.3
Learner missed school within the last week	23.2	38.0	46.0	39.3	59.4	43.3
Sent home for school fees	6.7	42.7	44.7	14.1	66.9	41.6
Does paid work outside home	4.4	33.9	35.8	24.7	50.6	27.8
Parent doesn't talk to child about things that matter to the child	25.8	36.3	44.1	46.5	61.0	42.9
Child can't stay focused when things get in the way	33.5	31.6	44.7	42.0	47.8	36.7
Not treated with kindness	25.3	36.9	37.9	41.3	61.0	39.5

**All children in P7 – S3 are taught in English.*

The MoES considers inclusive education to be more than just CWD but to include all marginalised children such as street children, children in pastoral families, and fishing communities, etc. This implies that Inclusive Education is therefore seen as a process or an approach to make education accessible for all children, regardless of their individual barriers to learning which might not be specific to disabled children. Nonetheless, other barriers to learning cited by key informants from the MoES include class sizes and teacher-to-pupil ratios in mainstream schools that may not be appropriate to offer adequate attention to children with disabilities, well trained and equipped teachers who know sign language, an adequate supply of assistive devices for CWDs, and an accessible physical school environment to enable CWDs access to classrooms, playgrounds, sanitation facilities and other school facilities.

4.3 Outcome 2: Transition

This section will present the key findings on the potential transition outcomes, both successful and unsuccessful, of the intervention cohort of GWDs. As this is a 7-year programme, it is expected that many of the learners – particularly those in P7 and above - will transition out of school during the project lifetime. For those learners who transition into TVET institutions, there may be a need to create more appropriate learning assessments as they will no longer be learning English literacy and mathematics when studying vocational skills training. Similarly, at A' Level (S5-S6) unless learners opt to study English and mathematics as an A' Level subject, the SeGRA and SeGMA tools may no longer be appropriate as a measure of learning outcomes.

As the intervention is targeting only those with disabilities, there can be additional barriers to transition such as appropriately adapted secondary and TVET schools into which CWD can transition. This, along with many other factors already mentioned in this report, can lead to unsuccessful transition through the education system when compared to those children without disabilities. Table 48 below outlines the potential transition pathways of the cohort of CWDs being supported through the CSU GEC-T project.

TABLE 48: TRANSITION PATHWAYS

	Baseline point	Successful Transition	Unsuccessful Transition
Lower primary school	Enrolled in Grade 1, 2 ,3, 4	In-school progression Drops out but is enrolled into alternative learning programme	Drops out of school Remains in same grade Moves into work, but is below legal age
Upper primary	Enrolled in Grade 5, 6, 7	In-school progression Moves into secondary school Enrols into technical & vocational education & training (TVET)	Drops out of school Remains in same grade Moves into work, but is either paid below minimum wage or is below legal age
Secondary school	Enrolled in Grade 1, 2, 3, 4 (O'Level) 5, 6 (A'Level)	In-school progression Enrols into technical & vocational education & training (TVET) Enrols in to tertiary or further education Gainful employment	Drops out of school Moves into employment, but is paid below minimum wage
Out of school (age A to B)	Dropped out	Re-enrol in appropriate grade level in basic education	Remains out of school

Adapt as required

Transition rates could not be measured accurately as part of the baseline evaluation as Montrose had to rely on self-reporting of learners as to whether they repeated a class the previous year. Some learners would not have remembered, and others may be too embarrassed or shy to say that they have repeated a year. Therefore, this data has to be analysed with that in mind.

Table 49 and Table 50 outline the reported transition pathways at baseline. These figures have been calculated based upon learners reporting having repeated the current year in which they are studying. Please note that as this is the baseline evaluation, there are likely to be reporting inaccuracies and subsequent evaluation points will be in a better position to track actual progression as the control and intervention cohorts are followed through this longitudinal study.

TABLE 49: TRANSITION FOR INTERVENTION (GIRLS)

Intervention group (girls)						
		Benchmark transition pathway				Transition rates
Age	Sample size (#)	In-school progression	Moves into secondary school	*Currently repeating (unsuccessful transition)*	Missing transition value	Successful transition rate per age (%)
7	3	2		1		66.7%
8	10	8		2		80.0%
9	20	16		3	1	84.2%

10	30	24		4	2	85.7%
11	33	30		3		90.9%
12	49	44		4	1	91.7%
13	41	33	1	6	1	85.0%
14	39	32	5	1		97.4%
15	32	30	2	0		100.0%
16	8	6	1	0	1	100.0%
17	5	3		2		60.0%
18	3	3		0		100%
19	2	2		0		100%
20	0					
21	1	1		0		100.0%
22	0					
24	0					
Overall	**276**	235	9	26	6	90.4%

TABLE 50: TRANSITION FOR CONTROL GROUP (GIRLS)

Control group (girls)						
		Benchmark transition pathway				Transition rates
Age	Sample size (#)	In-school progression	Moves into secondary school	*Currently repeating (unsuccessful transition)*	Missing transition value	Successful transition rate per age (%)
7	2	2		*0*		100.0%
8	19	17		2		89.5%
9	21	19		2		90.5%
10	32	29		3		90.6%
11	41	36		4	1	90.0%
12	49	47		2		95.9%
13	47	39	5	3		93.6%
14	31	27	2	2		93.5%
15	14	13		1		92.9%
16	3	3		0		100.0%
17	1	1		0		100.0%
18	4	3		1		75.0%
19	1	1		0		100.0%
22	1	0		1		0.0%
24	1	1		0		100.0%
Overall	**267**	238	7	21	1	92.1%

The two tables above show an overall transition rate of 90.4% for intervention learners compared to 92.1% for control learners. This suggests overall 1.7% more control group learners have successfully transitioned compared to the intervention group. although the more learners in the intervention group managed to successfully transition from primary to secondary school.

4.4 Sub-group analysis of the transition outcome

Given that this is a baseline, individuals in the sample are by default considered to be at zero transition at this point for the evaluation. However, data on the pupils who are in the same class as they were in the previous year was collected and the analysis presented in the table below. This data has been cross tabulated with some of the factors (barriers and characteristics) affecting their successful transition. This analysis, however, will become more important and accurate at midline and endline as girls drop out or repeat.

The table below shows the comparisons of girls' transition outcome by the different characteristics and barriers in both the intervention and control groups. No significant differences are observed between the barriers/characteristics and transition outcome in the intervention group. In the control group, orphan status was significantly related to the transition outcome. Orphaned girls were more likely to repeat a class than those with parents. For example, single orphaned girls in the control group were much more likely to repeat a class than transition to the next class (P=0.002).

TABLE 51: GIRLS' TRANSITION BY CHARACTERISTICS AND BARRIERS TO LEARNING

Characteristics/Barriers	Is girl currently repeating her class from the previous year?			
	Intervention (%)		Control (%)	
	Yes	No	Yes	No
HOH education level	P=0.609		P=0.954	
No PLE certificate	52.0	41.5	35.0	31.6
O level incomplete	24.0	30.0	25.0	26.6
Above	24.0	28.9	40.0	41.8
Caregiver's education level	P=0.461		P=0.269	
No PLE certificate	53.4	41.1	30.0	35.7
O level incomplete	25.0	31.9	15.0	27.0
Above	21.4	27.0	55.0	37.3
HOH Occupation	P=0.628		P=0.542	
Unemployed	46.4	46.8	47.6	45.7
Employed	50.0	44.6	47.6	41.4
Self-employed	3.6	8.6	4.8	12.9
Care giver Occupation	P=0.387		P=0.645	
Unemployed	57.1	43.5	42.9	46.8
Employed	32.1	44.6	28.6	33.3
Self-employed	10.7	11.8	28.6	19.9
Poverty level	P=0.946		P=0.395	
Poor/Poorer	50.0	49.5	33.3	47.3
Middle	14.3	12.4	14.3	15.1
Rich/Richer	35.7	38.2	52.4	37.6
Basic needs	P=0.861		P=0.664	
Affords basic needs	78.6	80.0	80.9	76.8
Doesn't afford basic needs	21.4	20.0	19.1	23.2

Characteristics/Barriers	Is girl currently repeating her class from the previous year?			
	Intervention (%)		Control (%)	
	Yes	No	Yes	No
Language of Instruction (LOI)	P=0.359		P=0.841	
Child doesn't speak LOI	42.9	52.1	42.7	45.2
Child speaks LOI	57.1	47.9	57.1	54.8
Sex of household head	P=0.775		P=0.551	
Male	46.4	43.6	47.6	40.9
Female	53.6	56.4	52.4	59.1
Girl living with parents	P=0.659		P=0.192	
Girl doesn't live with both parents	75.0		57.1	71.0
Girl lives with both parents	25.0		42.9	29.0
Orphan	P=0.106	72.6	P=0.002**	
Not orphan	78.6	23.7	57.1	84.4
Child is single orphan	10.7	3.8	33.3	14.5
Child is double orphan	10.7		9.5	1.1
Child gets support to go to school	na		P=0.551	
No support	-	17.6	60.0	69.5
Receives support	-	82.3	40.0	30.5
Nature of transport to school	P=0.969		P=0.237	
Walking	71.4	69.9	71.4	83.9
Bus/Taxi	17.9	17.7	9.5	8.1
Others (car, bicycle etc)	10.7	12.4	19.0	8.1
Time taken to travel to school	P=0.369		P=0.589	
Less or equal to 30 minutes	88.5	78.1	63.2	64.4
31 minutes to 1 hour	7.7	18.9	36.8	31.0
More than one hour	3.8	3.0	0.0	4.6
Safety of disabled child to get to school	P=0.321		P=0.599	
Safe	68.0	77.1	61.1	67.2
Unsafe	32.0	22.9	38.9	32.8
Household chore burden (HCB)	P=0.605		P=0.492	
Girl has low HCB	32.1	31.7	33.3	22.0
Girl has moderate HCB	64.3	59.1	57.1	64.5
Girl has heavy HCB	3.6	9.1	9.5	13.4
Assistive devices	P=0.805		P=0.753	
Girl has assistive devices	16.8	16.0	4.8	4.9
Girl lacks assistive devices	66.3	72.0	9.5	15.7
Don't know	16.8	12.0	85.7	79.5
Disability type	P=0.764			
Communication	3.6	4.8		
Hearing	10.7	19.9		
Intellectual	28.6	18.8		
Multiple	7.1	5.4		
Physical	21.4	16.1		

Characteristics/Barriers	Is girl currently repeating her class from the previous year?			
	Intervention (%)		Control (%)	
	Yes	No	Yes	No
Self-care	3.6	2.7		
Visual	25.0	32.3		
Pupil faces challenges daily at school (HH/CG)	na		P=0.837	
Yes	72.2	-	42.7	38.1
No	5.7	-	0.0	1.9
Don't know	22.2	-	57.1	60.0
Pupil faces challenges daily at school (PCI)	P=0.805			
Yes	16.0	16.8	9.5	4.9
No	72.0	66.3	4.8	15.7
Don't know	12.0	16.9	85.7	79.5
*** means significant at 5% level of significance | na means not available*				

Another key factor affecting transition of GWDs is SNE not being part of the pre-service training received by teachers in preparation for their work. This minimises the chances of all GWDs accessing inclusion sensitive lessons in mainstream schools. It is important to note that although CWD may not receive adequate support from their teachers during the learning process, the Uganda National Examinations Board (UNEB) trains teachers and examination personnel to support candidates during national examinations[57]. UNEB also provides sign language training tailored to support candidates with hearing impairments during exams.

4.5 Cohort tracking and target setting for the transition outcome

To monitor transition, the baseline cohort of sample girls will be tracked at three points in time – for the Midline (I and II as applicable) and Endline evaluations. By managing to maintain the same cohort, the evaluation will seek to demonstrate statistically significant outcomes.

For intervention girls
At the major transition points (from P7 to S1 and S4 to S5), the loss of non-intervention girls is expected and shall be mitigated using a replacement of like-for-like as much as is possible. Within the school, the school management shall be approached to provide names of non-treatment replacement girls to participate in the study and assist the project get the necessary permission of their parents. At the moment, contact information of the non-treatment girls was obtained during this baseline and shall be maintained throughout the course of the project unless they drop out.

For treatment/intervention girls
This group of girls also face a similar transition path with major shifts as they are joining secondary school (P7 to S1) and as they are moving from lower secondary to higher secondary (S4 to S5). During this the project accessed baseline contact information for the girl's caregiver and or household head. Additionally, supplementary contacts were recorded as an emergency measure. Revisions to some of the contact details

[57] In Uganda, national exams are held at P7, S4 and S6 and these are considered to the main points of transition within the education system.

including caregivers' names were done to reduce the expected problems of locating the sampled girls during follow-up data collection processes.

TABLE 52: TARGET SETTING

	Evaluation point 2	Evaluation point 3	Evaluation point 4
Target generated by the outcome spreadsheet	**7%**	**8%**	**8%**
Alternative target proposed by project (if applicable)			

4.6 Outcome 3: Sustainability

Based on the FM's guidance, sustainability shall be measures at 3 levels - community, school and system level. For this project, it is hoped that sustainability will be achieved through continuous project interventions. Montrose will measure gains towards achieving sustainability using the score card provided by the Fund Manager and amended by Montrose to specifically assess the project sustainability based upon outcome indicators in the project log frame and ToC. This score card grades achievement towards sustainability as negligible, latent, emerging, becoming established and established. Montrose will, at subsequent evaluation points, collect data to measure the level of sustainability achieved through project interventions.

Community

Sustainability at the community level shall be measured by the number of parents who are able to contribute towards payment of school fess over time as a result of the portfolio of income-generation support activities CSU will be implementing. Expenditure on education shall centre on payment of school fees, transport to school, school means and scholastic materials. In addition, a second indicator will focus on community participation in self-help initiatives which will promote the rights of GWDs including their rights to education. It is hoped that through sustainable community engagement, attitudes will change and GWDs in these communities will experience equal opportunities including equal opportunities to education.

School

At the school level, sustainability will be measured through the policies and practises that the school authorities put in place to create an inclusive and conducive environment for GWDs. Scoring will be based upon evidence that schools have the necessary infrastructure in place to accommodate GWDs, that they have adapted Teaching and Learning Materials (TLMs) for each disability-type, special needs teachers/teaching assistants are available to support GWDs in the classroom and financial plans are developed, which include an allocation of funding for supporting these activities to ensure sustainability of the interventions in the longer-term.

System

At the system level, sustainability will be measured through the actions of government agencies responsible for education within Kampala and nationally in Uganda. These authorities include KCCA, MoES and MGLSD. Sustainability will be assessed through the funding allocated to SNE and progress made towards the development of policies such as the Draft National Policy on Disability. More inclusive education systems at national and Kampala regional level should contribute towards a more sustainable impact of the CSU project and better learning and transition outcomes for GWDs.

TABLE 53: SUSTAINABILITY INDICATORS

Rating	Community	School	System
Indicator 1	The extent to which the financial and other resources mobilised by the parents are benefiting the education of girls and boys with disabilities.	Extent to which schools demonstrate inclusiveness to attract and retain children with different education needs (e.g. infrastructures, teaching and learning materials, Special Needs Education human resource, financial plans).	Level of disability mainstreaming among stakeholders (KCCA, MGLSD, and MoES).
Indicator 2	Extent of community self-help initiatives geared towards rights of children including right to education.		
0 – Negligible (Null or negative change)	Less than 20% of household heads/caregivers report to have paid more than half of the fees for any of the 4 of the following: Girls' school fees, transport, school meals and scholastic materials 0-1 community self-help initiatives in the form of parents' groups and saving groups that contribute (through community sensitisation[58]) towards children's right to education	Less than 20% of targeted project schools possess any 1 of the following: adapted infrastructure, adapted TLMs, SNE human resource, financial plans containing budget benefiting CWDs in their schools.	0% increase in funding for inclusivity related programmes run by KCCA, MGLSD, and MOES[59] No SNE inspector appointed for Kampala No change to the draft National Policy on Disability
1 – Latent (Changes in attitude)	20% - 39% of household heads/caregivers report to have paid more than half of the fees for any 2 of the following: Girls' school fees, transport, school meals and scholastic materials 2-5 community self-help initiatives in the form of parents' groups and saving groups that contribute (through community sensitisation[60]) towards children's right to education	20% - 39% of targeted project schools should possess any 2 of the following: adapted infrastructure, adapted TLMs, SNE human resource, financial plans containing budget benefiting CWDs in their schools.	0.5% increase in funding for disability related programmes run by KCCA, MGLSD, and MOES Plans in place for a SNE inspector appointed in CSU target district Resuming of discussions on the National Policy on Disability
2 – Emerging (Changes in behaviour)	40% - 59% of household heads/caregivers report to have paid more than half of the fees for any 3 of the following: Girls' school	40% - 59% of targeted Project schools possess any 3 of the following: adapted infrastructure, adapted TLMs, SNE human resource,	1% increase in funding for disability related programmes run by

[58] This sensitisation will be limited to parents' groups sensitising fellow parents at community meetings on the benefits of education for GWDs.
[59] The Disability Act (2006) provides that 10% of the MoES budget shall be allocated to support Special Needs Education. Financing Special Needs Education in Uganda. DGF 2014. Page 25
[60] In addition to sensitising fellow parents at community meetings on the benefits of education for GWDs, parents' groups will provide psychosocial support to GWDs in their communities through counselling. This counselling will be aimed at raising their self-esteem and helping them coup with the stigma that comes with being disabled.

Rating	Community	School	System
Have and use	fees, transport, school meals and scholastic materials 5-10 community self-help initiatives inform of parents' groups and saving groups that contribute (financially or through community sensitisation[61]) towards children's right to education	financial plans containing budget benefiting CWDs in their schools.	KCCA, MGLSD, and MoES Budget for SNE inspector to be appointed in CSU target district Draft National Policy on Disability in process and key players in support
3 – Becoming established (Critical mass of stakeholders change behaviour) Have and use	60% - 89% of household heads/caregivers report to have paid more than half of the fees for any 3 of the following: Girls' school fees, transport, school meals and scholastic materials 11-15 community self-help initiatives inform of parents' groups and saving groups that contribute (financially or through community sensitisation[62]) towards children's right to education	60% - 89% of targeted project schools possess any 3 of the following: adapted infrastructure, adapted TLMs, SNE human resource, financial plans containing budget benefiting CWDs in their schools.	2% increase in funding for disability related programmes run by KCCA, MGLSD, and MoES Budget for SNE inspector to be appointed in CSU target district and the job advert published Draft National Policy on Disability in final phases of review and key players in support
4 - Established (Changes are institutionalised) Have and use	More than 90% of household heads/caregivers report to have paid more than half of the fees for all 4 of the following: Girls' school fees, transport, school meals and scholastic materials 16 or more community self-help initiatives inform of parents' groups and savings groups that contribute (financially and through community sensitisation) towards children's right to education	More than 90% of targeted project schools possess all 4 of the following: adapted infrastructure, adapted TLMs, SNE human resource, financial plans containing budget benefiting CWDs in their schools.	5% increase in funding for disability related programmes run by KCCA, MGLSD, and MoES SNE inspector appointed in CSU target district Draft National Policy on Disability approved and key players in support

With respect to the current sustainability score for CSU, the following outlines the score for each of the three components – community, school and system and the justification for each score.

Community:

- **Score**: 1 – Latent

[61] A combination of activities at stage 1 and 2, the parents groups might also mobilise funds to contribute the education of GWDs

[62] A combination of activities at stages 1 to 3, parents groups might also engage on a personal basis with families with GWD to reduce on the stigma attached to having a CwD.

- **Justification**: When asked 25.3% of intervention caregivers reported to pay more than half the amount of school fees for the disabled child they support. In addition, 44.4% of intervention group caregivers reported to be part of a CSU-led savings and loans group. However, none had been involved in community sensitisation campaigns with respect to raising awareness of children's rights to education.

School:

- **Score**: 0/1 – Negligible/Latent
- **Justification**: Less than 20% of the school had infrastructure such as Water and Sanitation Hygiene (WASH) facilities which were adequately adapted for disabilities. The capacity of schools to improve their infrastructure to meet the needs of CWDs is minimal without external assistance and MoES does not provide special grants to mainstream schools wanting to promote inclusive education. Overall, 97% of classes observed had adapted TLMs, although almost none were seen to be using them whilst the enumerators were conducting lesson observations. None of the schools had a dedicated SNE person nor financial plans within their school budget specifically for the benefit of CWDs.

System:

- **Score**: 0 - Negligible
- **Justification**: This is the baseline and so data was collected against which a percentage increase of funding allocation for disabilities in education will be monitored going forward over the next 7-year project. In addition, there is currently no SNE inspector appointed and the National Policy on Disability is still in draft form. Furthermore, a key informant from the MoES said that although MoES provides subvention grants to special schools (e.g. Mulago School for the deaf, etc.), there is no special grant to mainstream schools meant for promoting inclusive education. These are avenues CSU can work on to ensure funding and mainstreaming of disability issues is prioritised by government.

The following sub-section and Table 25 was completed by the project.

1) Set reasonable expectations: At each of the three levels of sustainability, what changes need to take place to ensure that attitudes, behaviours or approaches are established which provide for ongoing learning and successful transition for future cohorts of girls and boys? Who are the stakeholders involved in these changes? What are the factors that help or hinder changes? Refer to your sustainability plan, theory of change and logframe. Be brief in the table and provide narrative analysis below the table that refers back to the mixed-methods analysis under 1)

TABLE 54: CHANGES NEEDED FOR SUSTAINABILITY

	Community	School	System
Change: what change should happen by the end of the implementation period	Empowered and supportive households for disabled girls and boys with disabilities	Schools demonstrate inclusiveness to attract and retain children with different education needs	Increased mainstreaming of disability in education (KCCA, MGLSD, and MOES).
Activities: What activities are aimed at this change?	IGAs training for parents/caregivers for economic empowerment, and sensitisation of	Model accessibility improvements, Continuous capacity	Continuous capacity building of education stakeholders

	community members/ leaders on disability, gender, inclusive education and child protection	building of teachers, engagement of School Management Committees and Parents Teachers Association, disability awareness to the non-disabled pupils/students.	
Stakeholders: Who are the relevant stakeholders?	Parents/caregivers, community leaders/members, NGOs/CSO, Village Health Teams	Teachers, School Management, Parents Teachers, and pupils/students	Kampala Capital City Authority Officials, Ministry of Gender, Labour and Social Development Officials, Ministry of Education and Sports and development partners.
Factors: what factors are hindering or helping achieve changes? Think of people, systems, social norms etc.	Cultural connotations of gender and disability within communities.	Limited funding for schools, change in national policies, change in attitude may take time, and implementation of disability related policies.	Level of prioritisation for disability inclusion among system stakeholders.

The CSU GEC-T project intends to achieve; Empowered and supportive households for disabled girls and boys with disabilities at community level, and at school level, Schools demonstrate inclusiveness to attract and retain children with different education needs while at system level, increasing the level of disability mainstreaming among stakeholders (KCCA, MGLSD, and MOES).

At community level, the project has planned engage with Parents/caregivers, community leaders/members, NGOs/CSO, Village Health Teams. While the parents are Parents/caregivers expected to be economically empowered through the IGA trainings and further support with loans. The parents organised into groups will be agents of disability advocacy within the communities to sensitise other parents of disabled girls as well as other non-disabled children. The community members: leaders/members, NGOs/CSO, Village Health Teams will also be sensitised around on disability, gender, inclusive education and child protection so as to increase their disability awareness so their attitude and perceptions improve towards the education of disabled girls and boys.

At school level, the engagement will be with Teachers, School Management, Parents Teachers, and pupils/students. The capacity of teachers will be built on inclusive education so that they may be able to deliver lessons in a gender and disability inclusive setting. This inclusive teaching is expected to result in a sustained retention of disabled girls and boys in school. Additionally, other school stakeholders will be sensitised on disability for example the non-disabled peers so that they can offer peer support to the disabled colleagues. The engagement and orientation of school managers is also expected to result into more disability practices such as accessible infrastructures, teaching and learning materials, SNE human resource, and financial plans that are intended to promote inclusive education.

At system level, engagement will be policy actors such as KCCA, MoGLSD and MoES. The system level engagement will take the form of awareness sessions for key stakeholders on disability, gender, IE and Child Protection and also direct involvement in project activities such joint monitoring. The project will continuous show case to system stakeholders what works for education of girls and boys with disabilities during the Basic Education Working Group and SNE Working Group. The level of prioritisation for disability inclusion among system stakeholders is likely to delay the approval of inclusive education policy, and recruitment of SNE personnel at KCCA.

5 Key Intermediate Outcome Findings

This section presents the key findings against each of the project's Intermediate Outcomes (IO). For each of the IOs, key findings, interpretations and reflections as derived from analysis of the baseline data, have been identified and explored.

The data on IOs was collected using a mixed method approach at different levels of the school governance system. Quantitative (closed question) and Qualitative (open-ended question) KIIs were held with learners, teachers and head teachers at school level and with government authorities at regional/national level. Representatives from Ministry of Education and Sports (MoES), National Education Standards (NES), Kyambogo University, National Curriculum Development Centre (NCDC), Uganda National Examination Board (UNEB), Kampala City Council Authority (KCCA), and members of School Management Committees (SMCs) were all interviewed and contributed with their insights into school governance and management systems, teacher quality, human resources and financing. In addition, classroom observations were carried out to triangulate findings with regards to teacher quality. Some of the results in this section cannot be disaggregated by intervention or control because the same teacher/headteacher is in charge of all learners and both intervention and control learn in the same classrooms being observed.

5.1 Intermediate Outcome 1: Attendance[63]

Summary of key findings

- On the whole, children in the intervention group were less likely to report that they had missed school in the last week across all grade levels.
- Majority of head teachers (90.9%) reported tracking learners' attendance every day through class attendance registers.
- Majority of head teachers (78.2%) said they elicit parental support by inviting them to school to discuss why their child is missing school.

Logframe indicator findings

- ***Logframe indicator 1.1 – % improvement in disabled girls' attendance in schools (disaggregated by impairment type) throughout the life of the project.*** Although determining the rate of improvement in attendance is not possible at baseline, it was found that children with difficulties communicating (90%), multiple (88%) and difficulties hearing (78%) had higher rated off attendance. Overall, attendance average at 68% across all disability types.
- ***Logframe indicator 1.2 - Stakeholders` views on the extent to which project interventions have contributed to school attendance of disabled girls on a scale of 1-3 (1-Not at all, 2-Small extent,***

[63] At the time of data collection official notification letters from KCCA had not been received by Montrose and so as a result the enumerators did not have the necessary documents to request to see attendance registers. This will be followed up in July once permission has been granted as part of the monitoring spot checks.

3-Great extent). 94% of the caregivers reported that project interventions have contributed to school attendance of GWDs to **a great extent.**

- Although no baseline target was set for these indicators, the overall average attendance among all disability types was much lower than the midline target of 92%. Additional research is required into the reasons that prevent GWDs from attending school even though majority of the caregivers believe project interventions have greatly contributed to school attendance of GWDs.

Factors likely to hinder/support progress of the IO:

- Increasing attendance is complex and multi-faceted. One supportive mechanism to increase attendance is CSU's paying for school fees and school supplies. However, this is not a sustainable intervention. As this support is stopped or phased out - and parents supported through income-generating activities are expected to increase their contribution – attendance may well be hindered.
- The current cohort is young and as children progress through the school system there are less and less CWD present in mainstream schools. Therefore

The Theory of Change which under-pins this programme postulates that to achieve the outcome *'improved attendance rates of girls with disabilities in project schools'* there are two key outputs that will feed into this: (i) GWDs receive direct support to contribute to retention in schools and; (ii) schools are supported to improve accessibility and sanitary facilities. Therefore, the following section will focus both on reported attendance rates as well as school infrastructure. All project beneficiaries are receiving some financial support to stay in school, so this is a consistent factor and a statistically significant difference between the intervention and control groups (see table 12) and subsequent evaluation points will explore this relationship with attendance rates further by reflecting on the baseline statistics presented below.

Children in the intervention and control groups were asked questions about whether they missed school at least once during the previous week. Their responses are detailed in the table below. On the whole, children in the intervention group were less likely to report that they had missed school in the last week across all grade levels.

TABLE 55: LEARNER ATTENDANCE

	Intervention (Baseline)				Control (Baseline)			
Attendance	*P3-P4*	*P5–P6*	*P7-S3*	*Average*	*P3-P4*	*P5-P6*	*P7-S3*	*Average*
Learner missed school within the last week	23.2 %	47.0%	43.1 %	37.8%	39.3 %	64.1 %	32.7 %	45.4%

**This table represents data taken from the pupil context interview*

The vast majority of head teachers reported tracking learners' attendance every day through class attendance registers. The remaining head teachers said they used weekly attendance sheets: no head teachers said they only track attendance by the month or course. Tracking attendance is the first step in ensuring learners attend school, the next step is acting on that attendance. For learner attendance to improve, head teachers will need to use the data they collect to identify mechanisms for encouraging parents to send their children regularly to school.

TABLE 56: HEADTEACHER RESPONSE TO TRACKING LEARNER ATTENDANCE

Question: How do you track learners' attendance?	Responses
Daily class attendance registers	90.9%
Weekly attendance sheets	9.1%
Monthly attendance sheets	0.0%
Course attendance sheets	0.0%
Other (specify)	0.0%

When asked how they handle learners who miss school regularly, the majority of head teachers said they elicit parental support by inviting them to school to discuss why their child is missing school. Some other head teachers said they speak to the child directly to find out why they miss school. A small percentage of head teachers said they punish learners who are regularly absent.

TABLE 57: CONSEQUENCES FOR LEARNERS WHO MISS SCHOOL REGULARLY

Question: What do you normally do to learners who miss regularly?	Responses
Discipline/punish them	5.5%
Talk to the child and find out reasons for their absenteeism	12.7%
Invite parent to school and find out reasons for absenteeism	78.2%
Suspend/expel the child from the school	0.0%
Force them to repeat	0.0%
Request teacher to give them additional support	1.8%
Other (specify)	1.8%

5.1.1 Infrastructure

One of the barriers to attendance at school level as outlined in the CSU ToC is the adaptation of school infrastructure for different disability types. As a government official at MoES noted *'a construction unit in charge of physical infrastructure designs country wide exists at the MoES'*. The unit emphasises construction standards in public schools e.g. the provision of ramps, wider doors, larger windows for sufficient lighting. Community supervision is also required to ensure that contractors comply with these standards. Although standards exist, Head Teachers indicated that most of the *schools 'are not fully accessible to CWDs'*. Although some classrooms have ramps, walkways and playgrounds, they are mostly covered in potholes or are poor quality terrain, which affects access by CWDs.

Contrary to that is the fact that MoES does not provide special grants to mainstream schools meant for promoting inclusive education so it is up to them to mobilise the funds to ensure the school environment is adapted appropriately. Therefore, Universal Primary Education (UPE) schools that are a majority of schools under KCCA and hence part of the project and are purely government funded will never have the funds to adaptation for CWDs.

The provision of adequate infrastructure and attendance monitoring will be part of the monitoring spot checks which Montrose and CSU will carry out throughout the project.

5.2 Intermediate Outcome 2: Teaching Quality

Summary of key findings

- There is a generally positive attitude amongst key informant policy makers and school administrators regarding the need to promote inclusive education, rather than special schools for children with disabilities
- Despite 70.9% of teachers and headteachers reporting to have an inclusive education policy (see Table 58 below), only 41.8% reported having an inclusive education manual for training and implementation for staff
- 4.8% of teachers were not in support of mainstreaming CWDs due to a lack of resources, classroom adaptations and teacher preparation.
- Teachers' descriptions of inclusive education were all representative of inclusive practices in a school environment; however, they largely do not relate to inclusive education practices in the classroom or academic environment.
- The majority of teachers (73.5%) said they received quarterly capacity building and most training was provided by CSU (89.3%).
- More than half of teachers (54.2%) requested for training on special needs education while more than one-third of them (37.4%) requested for a refresher course on how to handle CWDs.
- 97% of teachers did not use resources specifically adapted for teaching CWDs and 88% of teachers did not use resources sufficiently across all disability types.
- CWDs are more likely to contribute to class discussions than small group discussions and CWDs only led small groups in 9% of the class observations.
- One quarter of teachers were more likely to call on children without a disability than on those with a disability
- Although 81% of learners with disabilities were engaged during the lesson; learners with different needs (e.g. less able and more able learners) were only paired together 35% of the time.
- A total of 10% of classroom observations uncovered signs of bullying towards children with disabilities
- The most common method by headteachers (41.8%) used to address regularly absenteeism among teachers is to request fellow teachers to talk to the teacher and advise him/her accordingly.

Logframe indicator findings

- ***Logframe IO indicator 2.1 – Percentage of teachers (disaggregated by sex) displaying skills in teaching literacy/ numeracy in a gender responsive and inclusive manner.*** 25% of female and 12% of male teachers were observed to display gender responsive and inclusive literacy and numeracy teaching skills.
- ***Logframe IO indicator 2.2 - % of teachers (disaggregated by sex) who have a positive attitude towards girls with disabilities.*** 44.9% female teachers compared to 20% male teachers have a positive attitude towards GWDs
- ***Logframe IO Indicator 2.3 - The extent to which teaching process in the project schools meets the learning needs of pupils on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent).*** Female teachers think that the teaching process in project schools has to a ***small extent*** met the pupils' learning needs. On the other hand, male teachers believe that the teaching process have ***not at all*** been met the learning process implemented in project schools.
- It is important to note that given the low percentage of male teachers observed to display inclusive teaching skills and have a positive attitude towards GWDs, GWDs that are primarily taught by male teachers might perform worse than those taught by a female teacher.

Note: There are no baseline targets for the above indicators

Factors likely to hinder/support progress of the IO:

- Both lack of adapted materials and too many children in the classroom with differing needs can hinder progress with respect to increasing teacher quality
- Lack of headteacher involvement in classroom observations and monitoring of IE practices will hinder progress with respect to improving teacher quality

- Involving government in inspecting schools and feeding back findings in a constructive manner to encourage better teaching practises will support achievement of the IO through both increasing government capacity and encouraging schools to practise inclusive education approaches to teaching

Based on the assumptions and hypotheses behind the project ToC, increasing teaching quality through improved teacher knowledge and capacity to deliver lessons using inclusive practises will lead to successful achievement of the Intermediate Outcome of *'increased nmber of teachers demonstrating inclusive teaching practises whilst teaching literacy and numeracy in class'.* This in turn will contribute towards the achievement of better learning at Outcome level. Therefore, in this section, Montrose presents responses to questions which were asked about inclusive education, teacher practises and human resources, as well as findings in relation to teaching quality and instruction for CWDs as a result of lesson observations.

5.2.1 Inclusive education

Officials at MoES argue that the Universal Primary Education (UPE) policy provides for education for all, even though the inclusive education policy is still in draft form. According to one government official at the MoES, the UPE policy guarantees every child of school-going age the right to education. The capacity of schools must therefore be built to accommodate SNE learners.

All KII participants understood the meaning of inclusive education, as a process of ensuring all children have access to education without marginalisation. According to the Assistant Commissioner for SNE at the MoES, the general policy position by MoES is that inclusive education is not limited to education for children with disabilities only, but all children who are marginalised e.g. street children, pastoralist children, those from fishing communities, amongst others. Inclusive education is therefore seen as a process or an approach to make education accessible for all children, regardless of whatever barriers they might have.

Institutional arrangements exist to promote inclusive education for example, MoES has a mandate to provide policy guidance, and monitor schools country wide, including those within Kampala City Council Authority's jurisdiction. Within the education sector, there is a SNE Task Force, with membership drawn, from MoES, MGLSD, Ministry of Health (MoH), other Ministries, Departments and Agencies (MDAs), and Non-Government Organisations (NGOs). It meets quarterly to discuss policy related activities, ongoing programmes, opportunities for partnership, and some of the challenges the partners are experiencing while implementing their SNE projects. In addition to MoES that is primarily mandated to promote inclusive education, the institutions below have a key role to play.

- Ministry of Finance Planning and Economic Development is mandated to provide funding for inclusive education
- Parliament of Uganda is supposed to appropriate the budget, and demand for accountability on the implementation of inclusive education
- MGLSD is mandated to provide technical guidance on disability and rehabilitation
- Ministry of Health (MoH) is expected to provide medical support, corrective surgery, and provide assistive devices for CWDs
- NGOs e.g. Save the Children, UNICEF, Cheshire Services Uganda, Sight Savers International etc. are expected to complement the above mandates where there are gaps
- Other institutions e.g. the National Curriculum Development Centre (NCD), Uganda National Examinations Board (UNEB), Teacher Training Institutes (TTIs), etc. are also required to mainstream disability and inclusive education in their activities, to ensure multiplier benefits to learners with disabilities.

There is a generally positive attitude by policy makers and school administrators regarding the need to promote inclusive education, rather than special schools for children with disabilities. Respondents believe inclusive education promotes better integration of children with disabilities and prepares them for the mainstream labour market. There is a recognition however, that class sizes and teacher to learner ratios in mainstream schools may not be appropriate to offer adequate attention to children with extreme disabilities. One Head of Department at Kyambogo University pointed out that *'special education may still be relevant for children with severe disabilities'.*

Whilst the policy makers are working towards creating a more enabling environment for inclusive education at national and regional level, in practise the schools participating in this study still have some way to go to implement such policies. Despite 70.9% reporting to have an inclusive education policy (see Table 58 below), only 41.8% reported having an inclusive education manual for training and implementation for staff and 63.6% have not had teacher exchange visits, a component of the CSU programme meant to provide professional development support to teachers through peer-to-peer learning.

TABLE 58: SCHOOL PERFORMANCE ON INCLUSIVITY

Questions	Responses		
	Yes	No	Don't know
Do you have an inclusive education policy?	70.9%	29.1%	0.0%
Do you have an inclusive education manual?	41.8%	58.2%	0.0%
Do you have a PTA?	78.2%	21.8%	0.0%
Do any parents of children/girls with disability sit on it?	60.5%	34.9%	4.7%
Have you attended a Cheshire Services Uganda inclusive education seminar?	89.1%	10.9%	0.0%
Have you attended a Cheshire Services Uganda orientation around inclusive education management?	67.3%	32.7%	0.0%
Have you had any teacher exchange visits?	36.4%	63.6%	0.0%

Positively, most teachers have heard of inclusive education and believe that all children with disabilities should be allowed to attend a mainstream school. They also report that they believe their school provides an inclusive environment for children with disabilities.

TABLE 59: TEACHER KNOWLEDGE ON INCLUSIVE EDUCATION

Questions about Inclusive Education Knowledge	Responses	
	Yes	No
Have you ever heard of inclusive education?	94.2%	5.8%
Do you agree that children with disabilities should be included in mainstream classrooms?	95.2%	4.8%
Do you believe that inclusion happens in your school?	97.9%	2.1%

When asked during interviews to describe key features of inclusive education, teachers replied with the following[64]:

'All children with or without a disability attend the same classroom and are treated the same way'
'Equally teaching children with disabilities and those without disabilities'
'All types of disabilities must be catered for in a school'
'All children are treated the same, and those with disabilities are mentored to reach the learning levels of those without disabilities'
'All learners in the same classroom do the same assessments'
'Knowing that all children can perform given the chance to do so'
'Ensuring the school environment is friendly for children with disabilities'

Although the teachers' description of the features of inclusive education are correct, they are disability focused which is contrary to the MoES definition explained above that considers Inclusive Education to cater for all marginalised children including those with disabilities. This could probably be because most trainings on inclusion received by teachers are from CSU which is a disability focused organisation. However, since these are mainstream schools, teachers must be equipped to handle children with all forms of marginalisation and therefore CSU and the MoES need to work closer together to achieve this.

Comments from teachers about mainstreaming children with disabilities in classrooms do not mention their right to education or government policy; rather, they focus on the social and educational benefits their inclusion can bring. When asked why children with disabilities should be included in mainstream classrooms, teachers said the following[65]:

'Children with disabilities add to the diversity in the classroom'
'Students with disabilities bring new strengths into the classroom'
'Students with disabilities help promote a climate of giving in the classroom'
'Students with disabilities do better when in a setting where more is expected of them'
'Students with disabilities challenge us to provide better ways to educate all children'
'Children with disabilities' brains develop stronger neural connections in a richer learning environment'
'By being in a classroom with children that don't have behavioural issues, some individuals with special needs may be able to develop better social skills'
'Because instruction is simplified and repeated over time, other children tend to benefit and improve their performance'

These findings support the quantitative findings outlined in the table above where 95.2% of teachers agreed that '*children with disabilities should be included in mainstream classrooms'*. According to the an official MoES, even though the inclusive education policy is still in draft form, the capacity of schools must be built to accommodate SNE learners against policies like the Universal Primary Education (UPE).

When the 4.8% of teachers (9) who did not agree with having children with disabilities in mainstream classrooms were asked why they thought so, they said the following[66]:

'The classrooms are not adapted for children with disabilities'
'The other children in the class ridicule the disabled children'
'There are no learning materials adapted specifically to children with disabilities'
'The teachers don't have time to give individual attention and also don't have expertise to handle children with disabilities'
'Children with disabilities may find difficulties communicating with other children'
'The classrooms are not adapted for children with disabilities'

[64] These qualitative statements have been paraphrased from individual teacher interviews and presented here in summary form.
[65] These qualitative statements have been paraphrased from individual teacher interviews and presented here in summary form
[66] These qualitative statements have been paraphrased from individual teacher interviews and presented here in summary form

Notably, the reasons teachers give for not mainstreaming children with disabilities have to do with lack of resources, classroom adaptations and teacher preparation. Their responses are aligned with an expressed concern that they, their schools and classrooms are ill prepared to properly teach and to provide a supportive and appropriate environment where children with disabilities can learn. These statements are validated by one of the key informant's submission that mainstream schools are not supported financially to maintain SNE learning though it is an inferred expectation through government policy.

To gain a more in-depth understanding of inclusion practises currently occurring in schools, teachers were then asked to describe the ways they have seen inclusion happening in their school. Some of their responses are provided below.[67]

'Children with disabilities are given equal opportunities, especially in class where they are assessed the same way as all learners'
'If they are interested, children with disabilities participate in sports and school clubs and other extra-curricular activities'
'They hold leadership positions within the school'
'The school does not discriminate against learners with disabilities when admitting students'
'They are given equal opportunities in all matters in the school'

Notably, the statements are all representative of inclusive practices in a school environment; however, they largely do not relate to inclusive education practices in the classroom or academic environment. The omission of statements depicting inclusion in the classroom or concerning the pupils' learning shows that teachers' need training in SNE. This was a challenge that was also by identified by a key informant from UNEB who cited that *"SNE should be embedded in the teacher's curriculum during pre-service training"*.

In contrast to the answers above, teachers were also asked to explain how they have seen exclusion happening in their school. Some of their responses are provided below[68]:

'Classes are not built with consideration for children with disabilities'
'Children are denied equal opportunity to participate in the day-to-day school activities'
'Children with disabilities are isolated and discriminated against'

These statements reflect a range of reasons for exclusion, from the school environment and facilities to denial of right to participation. These are clear issues that the CSU programme should further explore and address to improve inclusive practices in targeted schools.

Teachers were asked several questions to gauge their attitudes and beliefs about inclusive education. In each question, the majority of teachers chose the appropriate response, showing fairly progressive self-reported attitudes and beliefs about the benefits of including children with disabilities at school and confirming their right to education and protection. Most teachers believe that children with disabilities can learn as long as the curriculum is adapted to their needs and that they should be included in mainstream classrooms as long as the instruction is adapted to their needs. The results for each specific question are presented in the tables below.

TABLE 60: TEACHER ATTITUDES AND BELIEFS TOWARDS INCLUSIVE EDUCATION

Questions about Attitudes and Beliefs Towards Inclusive Education	Responses	
	Agree	Disagree
I believe that an inclusive school is one that encourages academic progression of all students regardless of their activity.	96.8%	3.2%
I believe that students with a disability should be taught in special education schools.	15.3%	84.7%

[67] These qualitative statements have been paraphrased from individual teacher interviews and presented here in summary form
[68] These qualitative statements have been paraphrased from individual teacher interviews and presented here in summary form

I believe that inclusion facilitates socially appropriate behaviour amongst all students.	97.4%	2.6%
I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs.	98.9%	1.1%
I believe that students with a disability should be segregated because it is too expensive to modify the physical environment of the school.	3.2%	96.8%
I believe that students with a disability should be in special education schools so that they do not experience rejection in a mainstream school.	11.1%	88.9%
I get frustrated when I have difficulty communicating with students with a disability.	23.3%	76.2%
I get upset when students with a disability cannot keep up with the day-to-day curriculum in my classroom.	22.2%	77.8%
I get frustrated when I am unable to understand students with a disability.	38.6%	61.4%
I am uncomfortable including students with a disability in a regular classroom with other non-disabled students.	6.9%	93.1%
I am willing to modify the physical environment to include students with a disability in the regular classroom.	95.8%	4.2%
I am willing to adapt my communication techniques to ensure that all students with an emotional and behavioural disorder can be successfully included in the regular classroom.	98.9%	1.1%
I am willing to adapt the assessment of individual students in order for inclusive education to take place.	99.5%	0.5%

It is important to note that an average of 64.6% of girls in the intervention group verses 81% in the control (see Table 95) agree that their teacher makes them feel welcome. Hence, this positive self-reporting of their attitude towards GWDs might need further research to ensure a positive correlation between teachers report and the experience of the GWDs in their classrooms.

Most head teachers reported that they feel their performance as a head teacher is better than their peers in similar positions in other schools. This is an important potential quality in motivating head teachers to ensure their performance, and that of their school and teachers, and in getting their commitment to align their school with standards and interventions to make the school an effective, equitable and inclusive place for children to learn.

TABLE 61: HEADTEACHER SELF-ASSESSMENT ON MANAGING GWDS COMPARED TO OTHER SCHOOLS

Question: How would you rate your own performance as a head teacher relative to other head teachers from this area in managing children with disabilities in your school?	Responses
Better than most other head teachers	72.7%
The same as most other head teachers	20.0%
Don't know	7.3%

In the table below, teachers and head teachers rated their skills relative to other teachers. Slightly more than half of teachers and head teachers believed they performed better than most other teachers and head teachers in handling children with disabilities. This indicates that teachers and head teachers have an overall positive attitude towards their work with children with disabilities and believe on the whole that they are doing a fairly good job.

TABLE 62: COMPARISON OF PERSONAL SKILLS IN HANDING CWDS COMPARED TO OTHER TEACHERS OR HEADTEACHERS

Questions	Responses			
	Better than most other teachers	The same as most other teachers	Worse than most other teachers	Don't Know
How would you rate your own performance as a teacher in handling children with disabilities relative to other teachers from this school?	57.1%	42.3%	0.8%	0.8%
How would you rate your own performance as a head teacher in handling children with disabilities relative to other head teachers from this area?	64.3%	28.5%	0%	7.1%

The tables above show that headteachers and teachers in these mainstream schools at some level assume that they are knowledgeable of how to handle CWDs. This could be credited to CSU's interventions in these schools even though most government-initiated trainings target heads of specialised schools as cited by an SNE specialist at Kyambogo University. *"The head teachers of special schools and those with known units of special needs children have been targeted for training in inclusive education but head teachers from most of the mainstream schools country-wide have not been targeted. School heads of schools with CWDs should be targeted for training".*

To ensure the sustainability of this kind of intervention beyond the project's lifetime, CSU must work to build capacity of government officials to conduct trainings on inclusivity in mainstream schools. A Trainer of Trainers model would be go a long way in encouraging peer mentoring among teachers. However, according an official at the MoES, *"There are no training manuals or tool kits to guide inclusive education training at the DES"*.

In the table below, teachers were then asked about their preparation of schemes of work, lesson plans and assessments for children with disabilities, as well as their classroom management techniques to support children with disabilities in class. Significantly, teachers are only preparing schemes of work for children with disabilities about half of the time and lesson plans only 70% of the time. At least half of the time their assessments do not cater for children with disabilities. During lessons, teachers report demonstrating more inclusive practices such as equitable engagement of learners, differentiated communication techniques and classroom management practices to ensure children with disabilities are included.

TABLE 63: TEACHER PRACTICES IN FAVOUR OF GWDS

Questions about Teacher Practices	Responses	
	Yes	No
Do you make schemes of work with provisions for children with disabilities?	54.5%	45.5%
Do your lesson plans provide for children with disabilities?	71.4%	28.6%
Do you pick girls and boys equally during lessons to answer questions in class?	97.4%	2.6%
Do you communicate orally, in writing and visually to ensure that all disabled children can understand?	97.9%	2.1%
Do you change the seating plan or design in your class to ensure that all children with disabilities are able to participate and engage in the lesson?	95.8%	4.2%

When you are giving an assessment or examination, do you cater for all children with disabilities in the design of the assessment?	52.9%	47.1%

Of the 71.4% of teachers who reported that they adapt their lesson plans for children with disabilities, most reported adequate, if non-specific, methods of inclusion. Clearly these teachers have had some exposure to lesson preparation for children with disabilities, though they do not identify specific strategies for varying types of disabilities[69],as demonstrated when teachers were asked for eamples of how they had adapted their lesson plans to accommodate CWD:

'Adjust the difficulty of tasks by asking questions that everyone in the class can answer'.
'Change the amount of help given to a student to allow other students to help the child read or complete tasks'
'Find ways for everyone in the class to participate in the classroom activities like asking a child with disability to hand out papers or book'.
'Use different methods of communication like songs that help with the lesson, or pictures to demonstrate the idea'
'Use visual resources such as picture, video, and objects that can help children understand difficult concepts'
'Simplify classroom materials so they focus on a few key words or phrases instead of a longer text'
'Make adaptations without necessarily singling out a single student in front of his peers for example by inviting everyone in the class to choose whether to discuss a chapter out loud, or by writing thoughts down on paper'

The table and qualitative data above indicate that the training provided by CSU is making an impact on the quality of teaching received by CWDs given that SNE is not part of the in-service training received by teachers. The testament of a SMC member for one of the project schools indicated that, "*The training also emphasised inclusive methods of instruction - encouraging teachers to ensure the lesson plans and schemes have an element of disability. This has raised consciousness for the teachers to have an inclusive scheme for all CWDs".*

In the table below, teachers were asked about their beliefs about the academic potential and progress of children with disabilities in their classrooms. Although the overwhelming majority of teachers agreed that working hard can help them get through to the most difficult and unmotivated students with disabilities, the majority of teachers had generally negative attitudes about CWDs' ability to learn. The most striking and contradictory of these findings is that almost 97% of teachers think that students with disabilities will never perform well academically regardless of the support given to them. This is a particularly important finding, as the CSU programme is built upon helping teachers improve learning outcomes for children with disabilities in their classrooms. Yet, if they do not believe CWDs are capable of learning, the programme must embark on a substantial behaviour change campaign to improve teachers' attitudes before they will willingly and routinely adopt inclusive practices in their classroom.

TABLE 64: TEACHER'S BELIEFS ABOUT TEACHING CWDS AND THEIR ACADEMIC PERFORMANCE

Questions about Teacher Beliefs Towards Teaching CWDs and their Academic Performance	Responses		
	Agree	Disagree	Don't know
If I try really hard, I can get through to even the most difficult and unmotivated students with disabilities.	95.2%	3.2%	1.6%

[69] These qualitative statements have been translated and paraphrased from individual teacher interviews and presented here in summary form.

I feel as though some of my students with disabilities are not making any academic progress compared to children in my class without disabilities.	73.5%	25.4%	1.1%
I feel as though students with disabilities can never perform well academically regardless of the support provided to them.	96.8%	2.6%	0.5%
Students with disabilities perform worse than other students.	80.4%	19.0%	0.5%
Students with disabilities should be put in a special school that has the resources to educate them.	85.2%	14.3%	0.5%
The misbehaviour of students with disabilities in my classroom interferes with my teaching	85.7%	13.8%	0.5%

5.2.2 Human Resources

Every district is supposed to have an SNE Inspector whose role is to ensure local governments are compliant with the inclusive education requirements, and schools make the necessary investments to support all marginalised children, including those with disability. However, respondents indicated that most districts have not recruited SNE Inspectors and that the limited number of teachers with SNE skills is a hindrance to the implementation of inclusive education. The situation is exacerbated by the large teacher to learner ratios in most schools. According to an official at Makerere University Primary School, '*one teacher manages many learners and may not necessarily be able to give extra attention to CWDs'.*

In addition to the large number of learners, teachers are not adequately trained and equipped to handle children with disability. Kyambogo University provides specialist training for teachers in SNE. However, there are no special incentives such as scholarships to encourage more students to enroll for SNE. According to the Commissioner SNE, MoES, and the Executive Director of the National Curriculum Development Centre, Danish International Development Agency (DANIDA) previously provided 100 scholarships annually for SNE teachers. This support has ended. The University has established a programme for training specialist tutors to train students in the teacher training colleges in SNE. Currently, SNE is not included in the pre-service training of teachers.

> "*Most teachers did not learn about SNE when being trained at Primary Teacher Colleges – most of them only found out about SNE when they came to the field to teach".* Government Official MoES

Although children with disability may not receive adequate support from their teachers during the learning process, UNEB trains teachers and examination personnel to support candidates during national examinations. UNEB has provided sign language training tailored to support candidates with hearing impairments during exams. Training is also given to teachers for the blind, and transcribers. UNEB also uses SNE specialists from Kyambogo University to train the teachers and UNEB SNE support staff but has not developed special manuals and tool kits for this purpose.

In spite of the above gaps for SNE teachers, there are a number of initiatives to provide non-institutionalised training to teachers. A government official at MoES highlighted that manuals e.g. on functional assessment for SNE have been developed by MoES, and used in partnership with others e.g. CSU, Save the Children, Uganda Society for Disabled Children, etc. to train teachers.

NCDC is also developing resource books in different SNE areas for secondary education but lacks funding to roll out the initiative. In addition, NCDC has developed a seven-phased vocational module targeting CWDs for vocational skills training, and has worked with Sense International Uganda, to develop a community-based curriculum and guidelines for CWDs.

5.2.3 Teacher Educational Background

Teachers were asked about the highest level of education they had attained. Results showed that the majority of teachers have a diploma or bachelor's degree. An additional one-third of teachers have attained a PTC certification. Only a small proportion of the teachers have only a Senior 5, O-Level or A-Level qualification. As it has been identified that training at the PTC does not expose teachers to SNE, it is safe to assume that majority of the teachers would not have access to SNE training without CSU.

TABLE 65: TEACHERS' HIGHEST LEVEL OF EDUCATION

What is your highest level of education?					
Senior 5	O' Level	A' Level	PTC	Diploma/ bachelor's degree	Master's degree
0.5%	1.1%	2.7%	34.9%	55.6%	5.3%

In a means to sustain teachers exposure to inclusive education training CSU may consider partnering with existing training programmes such as those run by academic institutions. The following quote was recorded during the KII from one of the government officials that was interviewed:

> *"Teacher Instruction Education and Training Department (TIET): TIET has an aspect of teacher training and inclusive education. With support from Sightsavers, Kyambogo University partnered with TIET to train at least two tutors on inclusive education. These would work as teacher trainers at Primary Teachers colleges. This was to ensure that the teacher trainers target teacher trainees to have knowledge on disability and the importance of inclusive education. Starting next year (2019), the Grade 3 teachers should have a positive attitude towards disability inclusion in primary schools once targeted with the trainings. TIET is still under-funded and cannot effectively play its role of educating teachers country wide."*

Teachers were then asked which language they use to teach. The majority said English and 8% said both English and Luganda, which is appropriate in Primary 3 and Primary 4.

TABLE 66: LANGUAGE OF INSTRUCTION USED IN THE CLASSROOM

Language of Instruction		
English	Both English and Luganda	Other
91.5%	7.9%	0.5%

Teachers were asked if they offer extra help to children who were falling behind or who have a disability. The overwhelming majority of teachers said they offer extra help to both.

TABLE 67: PERCENTAGE OF TEACHERS THAT OFFER EXTRA HELP TO CHILDREN THAT ARE FALLING BEHIND

Extra Help	Yes	No
Offer extra help for children falling behind	98.4%	1.6%
Offer extra help for children with disabilities	94.7%	5.3%

5.2.4 Professional Development

Teachers were asked what types of training they had attended. The majority of teachers have attended training about CWDs and a seminar by CSU about inclusion. Slightly more than half the teachers received capacity building from CSU. Their responses are detailed in the table below.

TABLE 68: TYPES OF TRAININGS RECEIVED BY TEACHERS

Teacher Training	Yes	No
Attended training on teaching children with disabilities	88.3%	11.2%
Attended an "inclusive seminar" run by CSU	79.4%	19.6%
Received capacity building from CSU	54.0%	45.0%

** The average number of trainings attended by the teachers is 3 trainings*

When asked who provided them with training, almost 90% of respondents said CSU while about 15% said either the government or an NGO.

TABLE 69: ORGANISATIONS PROVIDING TRAININGS TO TEACHERS

Who provided these trainings?				
Government	NGO	Private Company	CSU	Other
7.7%	7.7%	0.6%	89.3%	6.6%

Given that CSU provided most of the trainings to teachers implies a lack of sustainability in this intervention. It is therefore vital for other institutions to pick interest in avail this service to ensure continuity after the project lifetime. A key driver cited by almost all key informants in promoting Inclusive Education is the aspect of training personnel.

5.2.5 Training Content and Capacity Building

Teachers were then asked to detail the specific training content they received during teacher training. Their responses are outlined in the table below.

TABLE 70: CONTENT OF TEACHER TRAININGS

Teachers Trained on Specific Content	Percentage
Handling and supporting children with disabilities	83.2%
Basics of communicating with those who have communication difficulties	28.2%
Identification of children with disabilities	33.6%
Interacting with learners and handling learners in class	21.4%
Lesson balancing	20.6%
Better methods of teaching mathematics and literacy	9.2%

Teachers were then asked to explain how often they receive capacity building. The majority of teachers said they received quarterly capacity building. Only a small fraction received capacity building every month.

TABLE 71: FREQUENCY OF CAPACITY BUILDING RECEIVED BY TEACHERS

Frequency of Teacher Capacity Building	Percentage

Quarterly	73.5%
Annually	14.7%
Six months	8.8%
Monthly	2.9%

Next, teachers were asked to explain the type of capacity building they received. Their answers are detailed below.

TABLE 72: TYPE OF CAPACITY BUILDING

Type of Capacity Building Training	Percentage
How to teach literacy and interpret curriculum	45.5%
How to make learning aids using local materials	37.6%
Using sign language when teaching children with disability	28.7%
Other	24.8%

Teachers were also asked which types of training they would benefit from in the future. More than half of respondents said they wanted training about special needs education. More than one-third said they want a refresher course on how to handle CWDs. Full details are provided in the table below.

TABLE 73: TEACHER RECOMMENDATIONS ON PREFERRED PROFESSIONAL DEVELOPMENT

Which professional development training would you benefit from?	Percentage
Special needs education	54.2%
Refresher courses on how to handle children with disabilities	37.4%
Guidance and counselling for children with disabilities	29.0%
How to teach children with disabilities and interpret the curriculum	22.1%
Other	22.1%

Teachers were asked if they face specific challenges while teaching CWDs. Almost half of respondents said that teaching them is time consuming and 23% said they are difficult to manage because they need special attention. However, only 3% of teachers said that CWDs perform poorly in class.

TABLE 74: CHALLENGES TEACHERS FACE WHILE TEACHING CWDS

Do you face the following challenges while teaching children with disabilities?	Yes
They are slow learners	60.3%
Teaching them is time consuming	49.6%
They are difficult to manage because they require extra attention	22.9%
They have poor handwriting and poor pronunciation of words	7.6%
They are difficult to identify unless they speak out	13.7%
They perform poorly in class	3.1%

Continued sensitisation to change teacher's perceptions towards CWDs is still required in order to lead to behavioural change where a decreasing percentage of teachers across evaluation points mention CWD

require extra attention and that teaching CWDs is time consuming. Additionally, sensitisations aimed at attaining zero percentage of teachers whose challenge is that CWDs perform poorly.

5.2.6 Classroom observations of lessons and student interactions

In this section, findings from the classroom observations conducted during the baseline are summarised. Results are divided into sub-sections related to the general classroom environment and girls' participation, participation of girls with disabilities, teaching strategies and use of instructional time, inclusive education and child protection, and an overall evaluation of the lesson observations.

5.2.6.1 Classroom environment and girl participation

In this sub-section, we provide information about the total number of classroom observations conducted, the average number of learners in a lesson, the physical environment in the classroom and the way the teacher conducts the lesson and engages learners. Girls' participation is also examined to create a picture of how female students act in the classroom.

The table below details the number of lessons observed in each class during the baseline evaluation.

TABLE 75: LESSONS OBSERVED PER CLASS

Class Observed	Number of Lessons Observed
P3	14
P4	21
P5	25
P6	25
P7	25
S1	3
S2	5
S3	1
Total	119

The average number of learners and the average number of children with disabilities in the observed lessons are shown in the table below. Results are disaggregated by class groupings.

TABLE 76: DISTRIBUTION OF CWDS IN THE LESSONS OBSERVED BY CLASS GROUP

Class	Average Number of learners per Lesson Observed	Average Number of CWDs per Lesson Observed
P3-P4	67.9	2.7
P5-P6	64.2	3.2
P7-S3	65.5	3.2

The table below summarises the various teacher and learner actions observed during P3-S3 lessons. It is important to point out that 97% of teachers did not use resources specifically adapted for teaching children with disabilities and 88% of teachers did not use resources sufficiently across all disability types.

TABLE 77: SUMMARY OF TEACHER AND LEARNER ACTIONS DURING THE LESSONS OBSERVED

Teacher and Learner Actions	Yes	No
Does the teacher use the chalkboard during the lesson?	100%	0%
Do the students use chalk during the lesson?	51%	49%
Do the students use desks during the lesson?	97%	3%
Does the teacher use a desk during the lesson?	46%	54%
Does the teacher use games during the lesson?	13%	87%
Does the teacher use instructional charts or posters?	11%	89%
Is there a wall clock in the classroom?	23%	77%
Do students use readers?	4%	96%
Do students use primers?	12%	88%
Do students use exercise books?	93%	7%
Do students use pencils?	70%	30%
Do teachers use any other resources during the lessons?	10%	90%
Do teachers use resources specifically adapted for teaching children with disabilities?	3%	97%
Do teachers use resources sufficiently across all the disability types?	12%	88%
Can the learners move freely around the classroom?	88%	12%
Can the teacher move freely around the classroom?	91%	9%
Does the classroom have windows?	99%	1%
Does the classroom have another source of light? (specify)	65%	36%
Is the lighting in the classroom good enough so that the chalkboard and books are easy to see?	97%	3%
Does the teacher use the teacher's guide or curriculum during the lesson?	44%	56%
Is there a co-teacher present at any time during the lesson?	15%	85%

The next table further breaks down findings about co-teachers. Of the 15% of co-teachers present in classrooms during observations, more than half of them were not active. The specific findings are presented in the table below.

TABLE 78: LEVEL OF ACTIVITY OF THE CO-TEACHERS PRESENT IN THE LESSONS OBSERVED

Co-Teaching	Active	Somewhat Active	Not Active
Level of activity of the 15% of co-teachers that were found to be present in the lessons observed.	7.7%	38.5%	53.9%

This could be an avenue for CSU to encourage co-teachers to provide additional assistance to CWDs during the lesson.

Although only 3% of teachers used resources that were specifically adapted for teaching CWDs, the next table details the specific types of resources that were adapted for CWDs during class observations.

TABLE 79: RESOURCES THAT WERE ADAPTED FOR CWDS DURING THE CLASSES OBSERVED

Question	Types of resources adapted for teaching CWD

Did teachers use resources specifically adapted for teaching children with disabilities? If so, describe them.	• Cards with bold writing for the visually impaired • Counters (straw) for addition and subtraction • Counters and pictures on cards

Some of the hinderances to the use of adapted materials identified through the KIIs was the inability of teachers to identify CWDs and the expanse of disability types and the uniqueness of the adaptions to TLMs needed for each disability group which a UPE school cannot meet.

The next two tables present findings about girls' participation during P3-S3 classroom observations. Girls are much more likely to contribute to class discussions than small group discussions and girls only led small groups in 19% of the class observations. Girls tend to be generally engaged and listening but did not ask for help from their peers and the teacher during most classroom observations.

TABLE 80: GIRLS' PARTICIPATION IN THE CLASSROOM

Girls' Participation in Class	Yes	No
Do girls contribute to class discussions?	97%	3%
Do girls contribute to small group discussions?	30%	70%
Do girls lead small groups?	19%	81%
Are these small groups mixed?	21%	79%
Do girls support their peers during assignments?	22%	78%
Are girls able to ask their peers for help?	29%	71%
Are girls able to ask the teacher for help?	28%	72%
Do girls seem generally engaged in activities?	94%	6%
Are girls listening attentively?	98%	2%

The following table further breaks down girls' participation during classroom observations. The first column shows the average number of girls who participate in several different ways during the lesson. The second column shows what percentage of the total number of girls in the class this number represents. Around one-third of girls participated in discussions, small groups and by asking for help. Positively, 72% of the girls in an average class are engaged and 82% are listening attentively.

TABLE 81: AVERAGE PERCENTAGE OF GIRLS PARTICIPATING IN CLASS

Girls' Participation in Class	Average number of girls participating	Average percentage of girls participating
Do they contribute to class discussions?	13.1	36.2%
Do they contribute to small group discussions?	11.2	31%
Do they lead small groups?	6.8	18.7%
Are these small groups mixed?	9.9	27.3%
Do they support their peers during assignments?	14.8	41%
Are they able to ask their peers for help?	12.8	35.4%
Are they able to ask the teacher for help?	10.5	29.2%
Do girls seem generally engaged in activities?	26	72%
Are girls listening attentively?	29.7	82.3%

5.2.6.2 Participation of children with disabilities

The following sub-section details findings about the participation of CWDs during the observations in P1-S3 classrooms. Similar to the findings about girls' participation, CWDs are more likely to contribute to class discussions than small group discussions and CWDs only led small groups in 9% of the class observations. This can still be considered a positive finding, as due to their small numbers overall in comparison to the class size, they were likely to lead small groups at most 1 out of every 10 times. CWDs tend to be generally engaged and listening, but three-quarters did not ask for help from their peers and the teacher during classroom observations. Results can be seen in the table below.

TABLE 82: PARTICIPATION OF GWDS IN SMALL OR LARGE GROUPS WITHIN THE CLASSROOM

CWDs' Participation in Class	Yes	No
Do they contribute to class discussions?	84%	16%
Do they contribute to small group discussions?	27%	73%
Do they lead small groups?	9%	91%
Are these small groups mixed between children with disabilities and those without?	15%	85%
Do they support their peers during assignments?	18%	82%
Are they able to ask their peers for help?	25%	75%
Are they able to ask the teacher for help?	22%	78%
Do CWDs seem generally engaged in activities?	86%	14%
Are CWDs listening attentively?	94%	6%

The following table further breaks down CWDs' participation during classroom observations. The first column shows the average number of CWDs who participated in several different ways during the lesson. The second column shows what percentage of the total number of CWDs in the class this number represents. Positively, a majority of CWDs participated in numerous ways throughout the observation and contributed to classroom activities and group work.

TABLE 83: PARTICIPATION COMPARED TO THE PERCENTAGE OF CWDS IN THE CLASSROOM

CWDs' Participation in Class	Average number of CWDs participating	Average percentage of CWDs participating
Do they contribute to class discussions?	1.7	73.7%
Do they contribute to small group discussions?	1.6	66%
Do they lead small groups?	1.4	61.1%
Are these small groups mixed?	1.8	76.2%
Do they support their peers during assignments?	1.2	51.4%
Are they able to ask their peers for help?	1.4	59.7%
Are they able to ask the teacher for help?	1.7	72.9%
Do CWDs seem generally engaged in activities?	2.2	91.9%
Are CWDs listening attentively?	2.3	95.4%

5.2.7 Teaching strategies and use of instructional time

The following sub-section details findings about the interactions between teachers and learners, disaggregated by gender and ability, during the observations in P1-S3 classrooms. The specific use of instructional time is also provided as a baseline for how teachers are spending their time inside the classroom and the types of interactions and activities they engage learners in throughout the lesson.

5.2.7.1 Teacher-learner interactions

The following table shows the interactions teachers have with learners broken down by gender. In the majority of classrooms, the teacher calls on and provides praise to both boys and girls equally. In fact, those teachers who do not call on or praise boys and girls equally are more likely to favour girls in this regard.

TABLE 84: TEACHER-LEARNER INTERACTION - GENDER

Teacher-Learner Interaction – Gender	Yes	No
Teacher calls on boys and girls equally	79%	21%
Teacher calls mainly on girls	17%	83%
Teacher calls mainly on boys	4%	96%
Teacher provides praise to girls and boys equally	77%	23%
Teacher provides praise mainly to girls	12%	88%
Teacher provides praise mainly to boys	0%	100%

According to the table below, the majority of teachers involve all children equally, call on all children equally and praise all children equally, regardless of ability. However, one quarter of teachers were more likely to call on children without a disability than on those with a disability.

TABLE 85: TEACHER LEARNER INTERACTION - CWD

Teacher-Learner Interaction – CWD	Yes	No
Teacher involves all children in lesson activities	85%	15%
Teacher calls on all children in the class equally	60%	40%
Teacher calls mainly on CWDs	2%	98%
Teacher calls mainly on children without disabilities	25%	75%
Teacher provides praise to all children equally	68%	32%
Teacher provides praise mainly to CWDs	6%	94%
Teacher provides praise mainly to children without disabilities	11%	89%

The classroom observations also sought to determine how teachers were spending their time in the classroom. The following table details the average number of minutes teachers spent doing different activities throughout the lesson. These numbers were also converted into percentages of the total instructional time. It is clear that time spent on different activities is split fairly evenly; the most time spent on any one activity was the time teachers spend leading whole class work. These findings can be used to help teachers improve their time on task in the classroom and put more emphasis on activities that develop core literacy and numeracy skills.

TABLE 86: TEACHERS' USE OF INSTRUCTIONAL TIME

Teachers' Use of Instructional Time	Average number of minutes spent on instructional time	Average percentage of total Instructional time
How many minutes of the total class time are spent on instruction/learning of the subject on the timetable?	7.5	16.6%
How many minutes of total class time are spent on learners working together as a whole class, led by the teacher?	12.5	30%

How many minutes of total class time are spent on learners working in pairs or small groups?	1.9	12.8%
How many minutes of total class time are spent on learners working alone?	4.4	16.8%
How many minutes of total class time are spent on learners doing reading activities?	3.6	18.7%
How many minutes of total class time are spent on learners doing writing activities?	6.7	18.5%
How many minutes of total class time are spent on learners sharing their work, either to the class or in pairs or small groups?	2.3	13.6%
How many minutes of total class time are spent on providing feedback to learners?	2.4	11.5%
How many minutes of total class time are spent on learners being assessed by the teacher?	5.6	16.6%

5.2.7.2 Inclusive education and child protection

Classroom observations also gathered information about the inclusivity of lessons and whether the teacher was able to differentiate their teaching techniques to accommodate different learning styles. Additionally, enumerators paid attention to the ways in which the teacher disciplined students and if their methods violated child protection policies. The following table presents the inclusive practices that occurred during observations in P3-S3 classrooms. The majority of teachers praised their learners and were attentive to them. However, only a small fraction of teachers provided visual rewards. Although 81% of learners with disabilities were engaged during the lesson; learners with different needs (e.g. less able and more able learners) were only paired together 35% of the time, indicating that more can be done to integrate learners with disabilities with other, more able, learners in the classroom. Full results are presented in the table below.

TABLE 87: TEACHER LEARNER INTERACTION - INCLUSIVE EDUCATION

Teacher-Learner Interaction – Inclusive Education	Yes	No
No praise observed for learners	11%	89%
Teacher praises the learners	81%	19%
Visual rewards are given to learners (i.e. noted on board/chart)	10%	90%
Enjoyment /emotional connection between teacher and learners	75%	25%
Attentiveness of point of views, motivation and interest by the teacher to the learners	79%	21%
Learners with different needs are paired together	35%	65%
Learners with disabilities are engaged in classroom activities	81%	19%
Learners with disabilities follow rules and directions	90%	10%
Key points of the lesson are summarised by the teacher at the end of the lesson	50%	50%

In many cases, appropriate disciplinary measures such as gestures, body language and verbal warnings were used to correct misbehaving learners. A total of 10% of teachers exhibited anger towards a child and 3% used corporal punishment to discipline a child during the observed lesson which could suggest that rates are higher when teachers are not being observed. These practices are against child protection, abuse and safeguarding policies and must be addressed by CSU during the programme.

TABLE 88: TEACHER - LEARNER INTERACTION - CHILD PROTECTION

Teacher-Learner Interaction – Child Protection	Yes	No
No discipline required	23%	77%
Proportionate verbal/gestural prompting to discipline learners	42%	58%
Use of tone (voice)/body language/eye contact to discipline learners	47%	53%
Quietly reminds the misbehaving learner of the rules	32%	68%
Praise for positive responses/choices	77%	23%
Tactical ignoring	10%	90%
Separates the misbehaving child from other children	11%	89%
Exhibited anger or hostility	10%	90%
Corporal punishment used in the lesson	3%	97%

During classroom observations, it was especially important to note the efforts teachers made to accommodate learners with special needs or different learning styles. The table below shows how frequently teachers differentiated their lesson delivery and planning to cater for different types of learners. Teachers were most likely to accommodate quicker learners and least likely to accommodate hyperactive learners.

TABLE 89: DIFFERENTIATION OF LESSONS TO CATER FOR VARIOUS TYPES OF LEARNERS

Differentiation: Lesson catered for…	Yes	No
Less abled learners	69%	31%
More able/quicker learners	72%	28%
Different learning styles (Visual/Audio/Kinaesthetic, Independent, Social and Emotional/Psychosocial)	44%	56%
Accommodations/modifications for learners with disabilities	48%	41%
Learners with hearing impairments	34%	66%
Learners with physical disabilities	19%	81%
Learners with visual impairments	43%	57%
Learners with signs of hyperactivity	6%	94%
Learners with special needs or requests throughout the lesson	26%	74%
Learners with difficulties taking notes or following activities on the board	11%	89%

Examples of what the teacher did to accommodate learners are detailed in these qualitative findings below.

For the less abled learners, teachers were observed to teach audibly and at a slow pace, repeat themselves to make sure everyone understood, made sure to show the work on the blackboard, randomly selecting learners to work at the board which ensured broad participation. On the other hand, teachers adapted lessons to quicker learners by engaging more with the active learners who raised their hands. Nonetheless, teachers were observed to engage all learners making hard for enumerators to differentiate between more abled or less abled learners.

Though moderate, examples of the disability specific accommodations noted through the classroom observations included learners with physical or visual or hearing impairments being seated at the front of the class, the teachers speaking loudly and encouraging other learners to speak louder when they were

answering questions; the teacher asking the CWD to draw a picture rather than spell a word and the teacher using a manila chart that had big, bold, clear letters during the lesson.

Although least observed, teachers' actions to accommodate children with more behavioural related impairments such as hyperactivity included the teacher encouraging the learner to actively participate in the lesson.

For children with special needs and those that faced difficulty taking notes; teachers tended to give clear explanations to questions asked, constantly repeated themselves while teaching, permitted bathroom breaks whenever the learner asked and help learners with their spellings to correct those who made mistakes. More broadly, some of the adaptations made for different learning styles saw teachers use the classroom environment to provide demonstrations, communicate with the learners orally, in writing and visually to ensure that they understood and write letters on posters for clarification.

5.2.7.3 Evaluation of lesson observations

The following table provides information about overall findings from the classroom observations conducted during the baseline. The first table gives an overview of the interactions witnessed during the observations. In general, the majority of learners appeared to be interested in the lesson and interacted effectively with their teacher. Only slightly more than half the learners appeared to have effective communication between themselves, but almost half of them had unrelated, side conversations with their peers that were not necessarily part of the lesson conversation. A total of 10% of classroom observations uncovered signs of bullying towards children with disabilities, which must be addressed by teachers and CSU in the programme. This number is quite high and is a cause for concern regarding classroom safety and protection for CWDs.

TABLE 90: OVERALL INTERACTIONS BETWEEN TEACHERS AND LEARNERS

Overall Interactions	Yes	No
General interaction – do learners appear to be interested in the class?	92%	8%
Was the interaction between the teacher and learners effective?	83%	17%
Was the interaction between learners effective?	55%	45%
Were the learners having conversations with all their peers?	45%	55%
Were there any signs of bullying towards children with disabilities?	9%	91%

Although observed to be occurring in only 9% (Table 90) of classrooms during interactions between learners and teachers, bullying from other children without disabilities was one of the challenges identified by the project boys and girls that participated in the FGDs. Responses that were received when asked what pupils would do if someone took their bag mainly centred on reporting the culprit to the teachers and/or their parents. Some of the older GWDs (secondary school) mention that they wouldn't report the matter to the teacher but to the headteacher and would resort to force if all avenues failed. The younger girls, on the other hand, always resorted to reporting to the teacher, headteacher or their parents but never mentioned force as an alternative as shown in the following statements from the FGDs:

'I first ask for it before and give them a chance to return it. If they refuse I report'
'I first tell the teacher and if he refuses, the teacher calls the parent'
'I speak to you first, then I tell my parents, but I don't go to the teachers'
'I ask you where you got my property, then I tell the HM and if that fails I come by myself and use force'

These responses among primary school GWDs could probably be as a result of the girls' impairments which make then a soft target for bullying. Most secondary going project girls that participated in the FGD had a sporadic intellectual disability like epilepsy meaning at times they could function normally hence were not necessarily attractive to bullies. Additionally, most GWDs tend to be older than the average pupil in their class which could encourage of retard bullying depending on the child's personality and self-esteem.

Children in the intervention and control groups were asked questions about whether they or their teacher missed school at least once during the previous week. Their responses are detailed in the table below. On the whole, children in the intervention group were less likely to report that they or their teacher had missed school in the last week across all grade levels.

TABLE 91: PUPIL AND TEACHER ATTENDANCE

	Intervention (Baseline)				Control (Baseline)			
Attendance	*P3-P4*	*P5–P6*	*P7-S3*	*Average*	*P3-P4*	*P5-P6*	*P7-S3*	*Average*
Agrees teacher missed school in the last week	30.3 %	46.0%	43.0 %	39.8%	44.4 %	65.8 %	35.6 %	48.6%
Learner missed school within the last week	23.2 %	47.0%	43.1 %	37.8%	39.3 %	64.1 %	32.7 %	45.4%

**This table represents data taken from the learner context survey.*

During the teacher interview, teachers were also asked about their absenteeism. A total of 5.3% of teachers reported that they missed school at least once in the last week. These results cannot be disaggregated by intervention or control because the same teacher teaches both categories of learners in a school. What is striking about this finding, however, is that teachers are significantly under-reporting their absenteeism in comparison to reports from learners. Teacher attendance and time on task in the classroom should be monitored by CSU during the programme to see if this improves. Additionally, learner attendance should also be carefully monitored, and strategies taken to improve the average attendance rate, as poor attendance has a direct, negative effect on overall learning.

When asked about how they track teachers' attendance, the majority of head teachers reported that they take daily attendance using a sign-in sheet. Most of the remaining head teachers said they either review lesson plans and learners' classwork to determine if a teacher taught or visit teachers around the school to confirm their presence. Tracking teacher attendance is critical for achieving improvements in the learning environment, as, if teachers are not in class and teaching, it is difficult for children to gain the maximum benefit from their learning environment and time in school.

TABLE 92: HEADTEACHER RESPONSE TO TRACKING TEACHER ATTENDANCE

Question: How do you track teachers' attendance?	Responses
Daily teacher attendance sign-in sheet	56.4%
Use lesson plans and learners' classwork	14.6%
Visit staffrooms/classrooms to observe presence of teacher	21.8%
Ask learners	3.6%
Others	3.6%

Head teachers reported that the most common method (41.8%) for addressing regularly absent teachers is to ask other teachers at the school to talk to them and advise the absent teacher to attend more regularly. This is compared to only about 11% of head teachers who said that they will take on that responsibility

themselves and try to uncover the problem with the absent teacher. More than a third of head teachers took a harder stance and reported either disciplining the teacher, issuing them a warning letter or reporting them to the education authorities. Clearly, for teacher absenteeism to improve, head teachers will need to take a more active role in ensuring they directly address teacher presence at school and in the classroom.

TABLE 93: TEACHER'S CONSEQUENCES FOR MISSING SCHOOL REGULARLY

Question: What do you normally do to teachers who miss school regularly?	Responses
Discipline them	14.5%
Talk to the teacher and find out reasons for their absenteeism	10.9%
Request fellow teachers to talk to the teacher and advise him/her accordingly	41.8%
Report them to the DEO/DIS/CCT	10.9%
Make them write an apology letter	5.5%
Issue them with a warning letter	12.7%
Invite the SMC to have discussions with the teacher	1.8%
Other	1.9%
Total	**100%**

Teaching Quality is a complex and multi-faceted component of the GEC-T project. Based on the above analysis and the indicators presented in the logframe, the evaluation team concluded that the extent to which teaching processes in the project schools meet the learning needs of pupils would be graded as a '2- a small extent'. For more details of the percentage and number of teachers showing each inclusive practice disaggregated by sex, please see Annex 1.

5.3 Intermediate Outcome 3: Girls' Self-esteem

Summary of key findings

- On average, control group students were more likely to think they would pass their candidate exams, feel they can do things as well as their friends and will be rewarded with a good job if they work hard.
- Students in the intervention group were more likely to think they were merely 'lucky' when they did well in a test but were less likely to get nervous when reading or doing maths in front of others
- Surprisingly, and positively, girls with disabilities are more likely to be included in decisions with their family than girls without disabilities. Nonetheless, across both the intervention and control group and all class groupings, families hold the most decision-making power.
- Regarding self-reported life skills, girls with and without disabilities express their abilities and capacities in the same way.

Logframe indicator findings

- ***Logframe indicator 3.1* - % of disabled girls (disaggregated by impairment type) who report increased self-esteem.** On average, 64% of GWDs report that they have self-esteem. Of these, girls with difficulty seeing (77%), difficulty with self-care (75%), difficulty hearing (65%), difficulty communicating (62%), difficulty walking (59%) and difficulty remembering (45%) report to have self-esteem.
- ***Logframe Indicator 3.2* - % of disabled girls (disaggregated by impairment type) who report increased self-confidence.** On average, 87% of GWDs report that they have self-confidence. Of these, girls with difficulty, hearing (90%), difficulty seeing (89%), difficulty with self-care (100%),

difficulty communicating (87%), difficulty walking (86%) and difficulty remembering (71%) report to have confidence.

- ***Logframe Indicator 3.3 - % of disabled girls who demonstrate increased life skills.*** On average 57% of GWDs were found to possess life skills. Of these, girls with difficulty, hearing (47%), difficulty seeing (69%), difficulty with self-care (75%), difficulty communicating (50%), difficulty walking (49%) and difficulty remembering (53%) report to have confidence.
- It is important to note that practicing agency (self-esteem) seems harder for GWDs to apply hence life skills and self-confidence have lower percentages that self-esteem.

Note: There are no baseline targets for these indicators

Factors likely to hinder/support progress of the IO:

- Ugandan culture does not encourage agency with any children including CWD which has an impact on self-esteem and decision-making potential about the future

Girl students also answered questions related to their self-esteem and the stigma, shame or alienation they felt. The tables are disaggregated by class groupings and intervention or control groups. Students were asked several questions related to their self-efficacy. On average, control group students were more likely to think they would pass their candidate exams, feel they can do things as well as their friends and will be rewarded with a good job if they work hard. However, they are more likely than intervention group students to get nervous when reading or doing maths in front of others. Students in the intervention group were more likely to think they were merely 'lucky' when they did well in a test.

TABLE 94: GIRLS' SELF-EFFICACY BY SUBGROUP

Self-efficacy	Intervention (Baseline)				Control (Baseline)			
	P3-P4	*P5–P6*	*P7-S3*	*Average*	*P3-P4*	*P5-P6*	*P7-S3*	*Average*
I think I will pass PLE/UCE/UACE at the end of P7/S4/S6	76.6%	89.1%	96.6%	87.4%	92.3%	96.0%	98.7%	95.7%
I am able to do things as well as my friends	84.4%	94.1%	95.4	91.3%	96.9%	97.6%	90.9%	95.1%
If I study hard at school, I will be rewarded by a better job	84.4%	89.1%	96.6%	90.0%	98.5%	96.0%	98.7%	97.7%
I get nervous when I have to read or do maths in front of others	34.4%	42.0%	47.1%	41.2%	46.2%	43.7%	48.1%	46.0%
If I do well in a test, it is because I am lucky	60.9%	52.9%	54.0%	55.9%	53.8%	54.0%	53.2%	53.7%

The next table examines the feelings of stigma, shame and alienation that girl students in both intervention and control groups feel. Students were asked several questions about the issues they face at home and school, including how others treat them and the resources they are given relative to the other children in their family. Full results are shown below disaggregated by class grouping and intervention and control group.

TABLE 95: GIRLS' FEELINGS OF STIGMA/SHAME/ALIENATION BY SUBGROUP

Stigma/Shame/Alienation	Responses (Yes)							
	Intervention				Control			
	P3 - P4	*P5-P6*	*P7-S3*	*Average*	*P3 - P4*	*P5-P6*	*P7-S3*	*Average*
Is there someone you could talk to if you were having a problem with your studies at school?	46.0%	51.0%	61.0%	52.6%	50.0%	50.4%	72.3%	57.6%
Is there someone you could talk to if you were worried about something at home?	48.0%	41.0%	52.0%	47.0%	56.1%	50.5%	67.7%	58.1%
Is there someone you could talk to if you were being teased or bullied by another child?	56.0%	49.0%	62.0%	55.6%	63.2%	50.4%	70.8%	61.5%
Do the other children in your class treat you with kindness?	73.0%	17.0%	88.0%	59.3%	69.0%	50.2%	92.1%	70.4%
Does your teacher make you feel welcome at school?	93.0%	95.8%	97.0%	64.6%	94.0%	50.2%	98.7%	81%
Compared to my siblings, fewer things (clothes, money, food etc.) are provided for me	23.0%	74.0%	44.0%	47.0%	20.0%	50.0%	42.9%	37.6%
Others think that I can't achieve much in life because I have a disability.	36.0%	58.0%	41.0%	45.0%	N/A	N/A	N/A	N/A
I often feel lonely at school.	19.0%	65.0%	18.0%	34.0%	17.0%	50.0%	16.7%	27.9%
Having a disability has spoiled my life.	25.0%	77.0%	14.0%	38.6%	N/A	N/A	N/A	N/A
I am often embarrassed because I do not have the right books, pencils and other materials for school.	20.0%	69.0%	27.0%	38.6%	25.0%	51.0%	35.9%	37.3%

***The data reflected on this table is from learners who answered "Yes" to these questions.*
***N/A represents questions that were asked to only students with disabilities*

Overall, GWDs experience more stigmatisation than those without disability which is probably as a result of self-stigma in relation to their disability given that 45% of intervention girls think they can't achieve much in life because they have a disability. Contrary to the self-reported acceptance of CWD presented by teachers in Table 95, the table above shows that only 64.4% of intervention girls feel welcomed by their teachers. Barely more than half the GWDs are treated with kindness by their peers and have someone to talk to when they are having problems at school or when they are being bullied. Surprisingly, most girls in the FGD said it was easy for them to make friends, mentioning that:

'It is easy because my impairment is not visible. At school I found people form my village and my former school, so I made friends. But you also have to choose who becomes your friend'

'I have friends and I discuss with them, go home with them, share with them about God because we share the same faith'

This however, does not excuse the treatment they receive from others. When asked what they do when someone teases or bullies them, children irrespective of their grade, responded in similar ways to those interviewed in the FGD as shown at the end of section 5.2.7.3. Other outstanding responses, that did not come through the FGD but were recorded through the PCI were:

'I beat them'
'I tease them, too'
'I run away'
'I just move on because I do not care about them'
'I forgive them'
'I feel shy'
'I fight back'
'I have never been teased'
'I keep to myself'
'I just walk away'
'I ignore them'
'I just cry and don't report to anyone'
'I quarrel with them'
'Nothing, because no one cares'
'I keep quiet

Teasing and bullying is harmful to self-esteem and confidence. Sadly, it happens to children worldwide. The responses above are mixed and representative of responses expected from any child who is experiencing bullying at school, there is nothing disability-specific to the responses given.

5.3.1 Life skills

Girl students were asked questions about life skills such as their decision-making power, their focus, communication skills and ability to ask for help as well as who they can talk to about their problems.

The first table shows girls' responses to questions about their decision-making power disaggregated by class groupings and intervention or control groups. Girls were shown a series of pictures – of themselves; of their family; and a picture of themselves with their family, to help them understand how to answer.

In general, across both the intervention and control group and all class groupings, families hold the most decision-making power. Perhaps surprisingly, and positively, girls with disabilities are more likely to be included in decisions with their family than girls without disabilities. This could be a result of the interventions CSU has previously had with these children and their families; this should be further explored and built upon in the programme. Specific information can be found in the table below.

TABLE 96: LIFE SKILLS - AGENCY BY SUBGROUP

Life skills Agency Questions	Responses						
	Intervention				Control		
	Grade/ Class	GWD	Family	GWD and family	GWND	Family	GWND and family
Who decides whether or not you will continue in school past this year?	P3-P4	6%	73%	21%	6.2%	92.3%	1.5%
	P5-P6	12%	71%	17%	6.4%	82.4%	11.2%
	P7-S3	16.1%	72.4%	11.5%	9.1%	85.7%	5.2%
Who decides if you will work after you finish your studies?	P3-P4	16%	63%	21%	13.8%	84.6%	1.5%
	P5-P6	29%	57%	14%	17.6%	72.8%	9.6%
	P7-S3	33.3%	56.3%	10.3%	31.2%	66.2%	2.6%
Who decides what type of work you will do after you finish your studies?	P3-P4	22%	59%	19%	24.6%	73.8%	1.5%
	P5-P6	49%	35%	16%	39.2%	52.8%	8%
	P7-S3	56.3%	33.3%	10.3%	49.4%	48%	2.6%

The next table shows the percentage of girls who say they have the ability to achieve goals despite difficulties, can express themselves to others and will ask for help from a teacher. It also shows the percentage of girls who have someone to talk to about problems at school and home. The responses are disaggregated by class groupings and intervention or control groups. The averages are fairly equal across intervention and control groups with the control group averages being slightly higher across almost all categories. This means that, in terms of self-reported life skills, girls with and without disabilities express their abilities and capacities in the same way.

TABLE 97: LIFE SKILLS – CONFIDENCE AND CHILD PROTECTION BY SUBGROUP

Life skills	Intervention (Baseline)				Control (Baseline)			
	P3-P4	*P5 - P6*	*P7-S3*	*Average*	*P3-P4*	*P5-P6*	*P7-S3*	*Average*
Can stay focused on a goal despite things getting in the way	70.3%	92.4%	89.7%	84.1%	76.9%	88.9%	87.0%	84.3%
If someone doesn't understand me, I try to find a different way of expressing what is on my mind	65.6%	89.1%	94.3%	83.0%	84.6%	88.9%	93.5%	89.0%
I ask the teacher if I don't understand something	70.3%	86.6%	88.5%	81.8%	80.0%	91.3%	94.8%	88.7%
Life Skills and Child Protection								
I have someone I can talk to if I was having problems with my studies at school	42.2%	51.3%	60.9%	51.5%	43.1%	50.0%	61.0%	51.4%

Life skills	Intervention (Baseline)				Control (Baseline)			
	P3-P4	*P5 - P6*	*P7-S3*	*Average*	*P3-P4*	*P5-P6*	*P7-S3*	*Average*
I have someone I can talk to if I was worried about something at home	40.6%	39.5%	48.3%	42.8%	49.2%	41.3%	57.1%	49.2%

Generally, there are no stark differences between the control and intervention groups regarding how they self-report about their self-esteem or respond to life skills questions. In questions about self-efficacy, the greatest differences between intervention and control groups related to questions on academic success, with girls without disabilities being slightly more likely to express confidence in passing their primary and secondary exams. Girls with disabilities were slightly more likely to attribute their success to luck rather than hard work, and to believe that studying hard would not necessarily yield them a better job in the future. Despite the fact that girls with disabilities professed slightly more negative feelings towards these issues than control group girls, overwhelmingly results for self-efficacy were high across both groups with over 90% of girls reporting positively to these statements. Overall, during the programme it is important to address the opinions and attitudes girls with disabilities have towards their academic success and achievements, as negative feelings and opinions can grow over time and affect their performance in school and ability to transition. CSU should maintain a focus on improving attitudes and opinions towards academic success and ensure girls with disabilities are encouraged to perform to the best of their abilities.

Regarding questions related to feelings of shame and stigma, girls with disabilities were less likely than girls without disabilities to report that they were able to ask others for help at home or school, and to report that other children at school treated them with kindness. They also were less likely to report that their teacher made them feel welcome at school and more likely to report that they felt lonely at school. Girls with and without disabilities both equally professed feeling embarrassed when they did not have the right materials for school. These findings demonstrate that girls without disabilities are in general more likely to feel shame and stigma at home and school in comparison to girls without disabilities, although preparedness for school is something girls in both groups feel shame about in equal measure. This is an important finding, as these issues of shame and alienation can directly affect learning and school success, as well as life chances, if they are allowed to grow and take root. The programme should reflect on this and determine ways to address it through activities aimed improving relationships between girls with disabilities and their families, teachers and peers in school.

Positively, girls with disabilities were more likely than girls without disabilities to report that they were involved in decision-making with their families. This is a success for the programme and likely an achievement from the first phase of the intervention that continues to spill over into the transition project. These gains should be expanded in the current phase and additional effort placed on ensuring that girls with disabilities remain important parts of their families, involved in both decision-making and choices related to their education.

5.4 Intermediate Outcome 4: Economic Empowerment

Summary of key findings

- The results suggest a statistically significant relationship between the intervention group and the CSU savings groups

- Most households regularly spend more money than they earn in both the intervention (54%) and control (56%) groups.
- In the intervention group, economically empowered households are characterised by low level of education, children walking or taking the bus to school
- The level of education of the head of the household has no impact on the level of economic empowerment attained by household in the intervention group while the reverse is true for the control group.
- Majority of the GWDs from economically empowered households where found to come from male headed households. The reverse is true for the girls from the control group where majority of them were from female headed households.
- Only a small proportion of the surveyed households always have an emergency fund to buffer them against sudden financial emergencies in both the intervention (18%) and control (10%) sample groups.
- Only about 2 in 10 households have the ability to regularly pay bills on time.
- 83.3% of GWDs from economically empowered households receive support to stay in school
- There are high levels of financial vulnerability amongst both the intervention and control participants.

Logframe indicator findings

- ***Logframe indicator 4.1* - Proportion of parents of disabled girls (disaggregated by impairment) with improved income.** On average 24% of parents of GWDs were found to have improved income, most of whom are parents of girls with difficulty with self-care (30%).
- ***Logframe Indicator 4.2* - % of parents who prioritise investment in girls' education highly against competing priorities (such as health, home improvements, food, another children's education etc).** More male parents (86%) rank their daughter's education over competing priorities compared to female parents (73%)
- ***Logframe* Indicator 4.3 - % of parents who currently invest in some way in their daughter's education (books/ clothes etc).** More men (71%) currently invest in their daughter's education compared to female parents (60%). Overall, an average of 66% of parents make such an investment.
- ***Logframe Indicator 4.4* - The extent to which a change in household income influences the decision of education of children with disabilities on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent).** A change in household income only influences the decision to educate CWDs to a **small extent**.
- Although about 80% of parents claim to prioritise investment in girls' education, only about 66% actually invest in some way in their daughter's education. Additionally, although an average of 24% reported to have improved income, parents still said that a change in household income only influenced the decision to educate CWDs to a small extent. This could be because income increments in these households is minimal that it cannot be used to educate GWDs. Therefore, there is a need for additional research into the level of change in household income that can influence parents' decision to educate CWDs.

Note: There are not targets for baseline targets for the above indicators.

Factors likely to hinder/support progress of the IO:

- CSU are working with children from some of the poorest areas within Kampala and as a result many families do not have access to sustainable forms of income. Whilst CSU are working to support families with income-generating activities, the current market is already flooded with small-scale entrepreneurs struggling to make a living and so the potential for this activity to have a lasting impact is limited.

This section discusses the household's economic empowerment levels as calculated using analysis of the household empowerment index and disaggregated by the different barriers and characteristics discussed in the preceding sections in this report.

The economic empowerment is, for the purposes of this report, defined as the capacity of women and men to participate in, contribute to and benefit from growth processes in ways that recognise the value of their contributions, respect their dignity and make it possible to negotiate a fairer distribution of the benefits of growth. The index was constructed using principal component analysis based on the three domains: employment, education, income (which includes the ability to resist shocks, availability of enough disposable income to cover recurrent expenses without the need for additional input from loans or family members).

Table 98 below provides an overview of the household economic practices disaggregated by sample group. The results suggest a statistically significant relationship between the intervention group and the CSU savings groups which correlates with the activities currently being implemented through the CSU project.

The results indicate that most of the households regularly spend more money than they earn in both the intervention (54%) and control (56%) groups. The findings also indicate that only a small proportion of the surveyed households always have an emergency fund to buffer them against sudden financial emergencies in both the intervention (18%) and control (10%) sample groups. Additionally, the results suggest that only about 2 in 10 households have the ability to regularly pay bills on time. Overall, there are no significant differences noticed among the intervention and control samples in regard to the expenditure, possession of an emergency fund, and sources of income. The findings confirm the high levels of financial vulnerability amongst both the intervention and control participants which corresponds to the project being implemented in some of the poorest areas of Kampala.

TABLE 98: DISTRIBUTION OF HOUSEHOLD ECONOMIC PRACTICES BY SUBGROUP GROUP

Characteristic	Intervention (%)	Control (%)	P value
Do you save with any of the CSU savings groups?			
Yes	44.4	4.2	0.000**
No	50.0	55.5	
No response/Don't know	5.6	40.3	
I spend less money than I make each month			
Always or most of the time	18.7	21.1	0.776
Sometimes	25.2	20.7	
Rarely	16.4	18.7	
Never	37.8	37.0	
Don't know/no response	1.9	2.4	
I have an emergency fund to cover for unplanned expenses			
Always or most of the time	18.2	10.1	0.190
Sometimes	22.0	22.2	
Rarely	8.4	10.6	
Never	49.5	54.8	
Don't know/no response	1.9	1.9	
I pay my bills on time			
Always or most of the time	22.9	16.3	0.295

Characteristic	Intervention (%)	Control (%)	P value
Sometimes	30.8	34.6	
Rarely	18.7	17.8	
Never	25.2	30.3	
Don't know/no response	2.3	1.0	
What are the different sources of income in this household?			
Paid job	37.8	40.9	0.526
Person's own business/self-employed	65.9	60.6	0.258
Letting land or real estate for rent	1.9	1.4	0.731
Pension	0.5	0.5	0.984
Disability benefit	1.4	0.0	0.087
Unemployment benefit	0.5	0.5	0.984
Family benefit	1.4	0.5	0.329
Money or aid from relatives or friends	9.4	7.2	0.427
Cheshire Uganda	1.9	0.0	0.048**
Agriculture	0.5	1.4	0.301

The findings from Table 99 shows a positive correlation between those who are found to be more highly economically empowered and where the poverty level is calculated as 'richer' amongst the sampled populations. The findings also suggest a statistically significant correlation between those caregivers who are able to afford their basic needs in both the intervention (91.2%) and the control (94.8%) groups.

TABLE 99: DISTRIBUTION OF ECONOMIC EMPOWERMENT BY CHARACTERISTICS AND BARRIERS

Characteristics/Barriers	**Highly economically empowered**	
	Intervention (%)	Control (%)
HOH education level	P = 0.359	P = 0.002**
No PLE certificate	43.2	14.9
O level incomplete	31.8	35.1
Above	25.0	50.0
Caregiver's education level	P = 0.622	P = 0.033**
No PLE certificate	46.1	23.7
O level incomplete	28.6	26.3
Above	25.3	50.0
HOH Occupation	P = 0.000**	P = 0.000**
Unemployed	57.1	57.1
Employed	41.8	37.7
Self-employed	1.10	5.2
Care giver Occupation	P = 0.000**	P = 0.000**
Unemployed	57.1	57.1
Employed	41.8	37.7
Self-employed	1.10	5.2
Poverty level	P = 0.000**	P = 0.000**
Poor/Poorer	35.2	27.3

Middle	12.1	13.0
Rich/Richer	52.7	59.7
Basic needs	P = 0.000**	P = 0.000**
Doesn't afford basic needs	8.8	5.2
Affords basic needs	91.2	94.8
Sex of household head	P = 0.781	P = 0.017**
Female	45.1	52.0
Male	54.9	48.0
Girl living with parents	P = 0.195	P = 0.131
Girl doesn't live with both parents	69.2	61.0
Girl lives with both parents	30.8	39.0
Orphanage	P = 0.597	P = 0.397
Not orphan	72.5	83.1
Child is single orphan	23.1	14.3
Child is double orphan	4.4	2.6
Girl with disability gets support to go to school	P = 0.351	
No support	16.7	
Receives support	83.3	
Nature of transport to school	P = 0.359	P = 0.503
Walking	73.6	84.4
Bus/Taxi	16.5	7.8
Others	9.9	7.8
Time taken to travel to school	P = 0.805	P = 0.429
Less or equal to 30 minutes	86.2	70.3
31 minutes to 1 hour	13.8	25.7
More than one hour	0.0	4.1
Safety of disabled child to get to school	P = 0.500	
Safe	74.4	
Unsafe	25.6	
Household chore burden (HCB)	P = 0.652	P = 0.810
Girl has low HCB	27.5	19.5
Girl has moderate HCB	63.7	68.8
Girl has heavy HCB	8.8	11.7
Assistive devices	P=0.630	
Girl has assistive devices	14.0	
Girl lacks assistive devices	72.1	
Don't know	13.9	
Disability type	P=0.258	
Communication	5.5	
Hearing	20.9	
Intellectual	18.7	
Multiple	7.7	

Physical	19.8	
Self-care	1.1	
Visual	26.4	
Learner faces challenges daily at school (HH/CG)	P = 0.630	P = 0.628
Yes	5.5	27.3
No	1.10	1.3
Don't know	93.4	71.4
Learner faces challenges daily at school (PCI)	P=0.767	P=0.483
Yes	32.6	29.9
No	58.1	57.1
Don't know	9.3	13.0
***Indicates a statistically significant finding with a Confidence Interval of 95%*		

Overall, the participants targeted with this survey are found in the lower socio-economic areas of Kampala. Therefore, the results of any comparative economic empowerment survey should be interpreted with this in mind. The similarity between the control and intervention groups in this instance is expected as caregivers send their children to the same schools which are located in poorer areas and as a result, families of both the control and intervention groups are in similar economic circumstances.

5.5 Intermediate Outcome 5: Governance, Environment, Attitudes and Perceptions

Summary of key findings

- Key informants purported that the hindrances to inclusive education are that it competes with other priorities for limited public resources and a lack of grants for SNE in mainstream schools
- Only 17.3% of teachers said CSU built a resource centre for CWDs at their school, but 100% of those with access to a resource centre said they have visited it and the students find it useful.
- 66.7% of teachers reported that learners with visual disabilities still lacked the most resources in the classroom and only about one-third of teachers said that readers and textbooks are available to CWDs
- Overall, caregivers believe that a child with disability can equally achieve a meaningful life given that the majority of the caregivers' in the intervention (88%) and control (97%) would like their girl child to attend a college/university. Most of the parents/care givers of GWDs wish the GWD to grow up to attain further education (44%) or get jobs (39%).
- Majority of the caregivers in both the intervention (88%) and control (89%) groups have heard about child abuse compared to 99.5% of teachers and headteachers.
- 28% of teachers and headteachers said they had heard about or seen GWDs being abused.
- There are no significant differences among the different types of child abuse across the two sample groups. Physical abuse (58% intervention, 60% control) and child neglect (47% intervention, 46% control) are the most the prevalent forms of child abuse respectively.
- Self-reported attitudes and behaviours of girls without disability and show relatively little reported stigmatisation towards children with disabilities.

Logframe indicator findings

- ***Logframe indicator 5.1*** **- *Key stakeholders displaying a positive change in attitudes and perceptions towards girls with disabilities (disaggregated by system level, school level, community level)*** More stakeholders at the household level (71%) have a positive attitude towards GWDs compared to those at the school level (65.6%).

- ***Logframe indicator 5.2*** **- *Reduction in the number of incidents reporting violation of rights of girls with disabilities.*** In section 5.5.4, it was found that only 23.4% parents of GWDs had reported cases of child abuse.

- ***Logframe indicator 5.3*** **– *The extent to which the attitudes and perceptions of stakeholders have contributed to the education of disabled girls on a scale of 1-3 (1-Not at all, 2-Small extent, 3-Great extent)*** Both parents and CWDs affirm that the attitudes and perceptions of other stakeholders greatly contribute to the education of GWDs

- It is important to note that while the both household and school stakeholders have a positive attitude towards GWDs; and children and parents both believe that the attitudes and perceptions of other stakeholders greatly contribute to the education of GWDs, only 23.4 % of the parents have and one could say are willing to report cases of child abuse. Therefore, encouraging parents to move from knowledge to action is paramount to creating positive behavioural change towards inclusivity.

Note: No targets were set for these indicators at baseline

Factors likely to hinder/support progress of the IO:

- One key factor supporting the progress towards achieving this IO is that the Inclusive Education Policy is already drafted by MoES and waiting to be ratified. This should provide a supportive mechanism for improving governance within the education sector
- Whilst teachers and caregivers of CWD are encouraging CWD to learn within mainstream education, the attitudes of the caregivers of non-CWD who prefer that CWD do not learn alongside their children could hinder the progress of this IO

The intermediate outcomes in the ToC aim to achieve an inclusive environment (school, household, policy, system) which is maintained to support the needs of girls with disabilities. The following section outlines the political environment at both a policy and system level as well as focusing on the attitudes of caregivers at household level and child protection issues arising with respect to school-related gender-based violence.

5.5.2 Political environment: governance

Although there is evidence of an institutional framework and willingness by key leaders to reduce barriers to education for CWDs, enormous challenges still exist. The most commonly mentioned challenge is that inclusive education competes with other priorities for limited public resources. This was emphasised by a government official at MoES who also noted that although MoES provides grants to special schools (e.g. Mulago School for the deaf), there is no special grant to mainstream schools meant for promoting inclusive education.

The above funding challenges notwithstanding, respondents were optimistic that the legal requirement by the Public Finance Management Act (PFM Act, 2015), which requires sectors to integrate gender and equity in their plans and budgets, will gradually create a more effective response to inclusive education.

The key cost drivers for inclusive education were listed by policy makers and school administrators as: teaching/learning materials, teacher training, and infrastructure adjustments. Schools do not receive earmarked funding for inclusive education. According to one government official, the MoES provides funds

for specialised materials such as braille paper, equipment and assistive devices to special schools and units, but not mainstream schools. As a result, mainstream schools which enrol CWDs struggle to meet these costs.

5.5.3 Physical environment: school-level resources

The next set of tables detail responses teachers had to various questions about the resources available in their classrooms for teaching children with disabilities.

The first table shows that the majority of schools do not have resources adapted for teaching CWDs and the majority of teachers believe that resources are not sufficient across all disability types. Only 17.3% of teachers said CSU built a resource centre for CWDs at their school, but 100% of those with access to a resource centre said they have visited it and the students find it useful.

TABLE 100: QUESTIONS ON WHETHER SCHOOLS HAVE RESOURCES ADAPTED FOR TEACHING CWDS

Question	Yes	No
Do you have any resources specifically adapted for teaching children with disabilities?	22.6%	77.4%
Are these resources sufficient across all the disability types?	40.0%	60.0%
Has the school made any modifications to its existing materials to meet the needs of children with disabilities?	46.6%	50.4%
Has CSU built a resource centre for children with disabilities in this school?	17.3%	79.0%
Do the students find it useful?	100%	0%
Have you visited the resource centre?	100%	0%

The next table details the specific resources available at the school for learners with disabilities. Only about one-third of respondents said that readers and textbooks are available to these children.

TABLE 101: AVAILABILITY OF CERTAIN RESOURCES FOR CWDS

Are the following resources available at school for learners with disabilities?	Yes
Readers	37.0%
Textbooks	33.3%
Pamphlets	3.7%
Other	59.3%

Teachers were asked to describe the modifications that have been made by their school to accommodate children with disabilities. Some of their responses are provided below.

Physical modifications

'Built walk ways for children with disabilities'
'Built latrines with adaptations for children with disabilities'
'Construction of ramps to aid children with physical disabilities'

Teaching methodology and classroom management modifications

'Adjusting seating arrangements and placing learners in places they are most comfortable in'
'Buying books that can help them read better'
'Talking loudly and moving around the whole classroom during lessons'
'Using geometric shapes for maths especially for the visually impaired'

'Audio examinations for those who cannot write well or have difficulty writing'
'New teaching materials were made for CWD'
'Markers for writing so that those with visual impairment can see properly'
'Provision of manila paper so that teachers can draw attractive illustration for children with visual disabilities'
'Mixing the children up in class so that those who are performing better can help the weaker ones'

Teachers were also asked which disability groups they think still lack resources. The most common answer was learners with a visual disability. Almost half of respondents said that children with intellectual disabilities lack resources for learning. More than one-third of respondents believe that learners with hearing and physical disabilities also need access to more resources.

TABLE 102: PERCENTAGE OF DISABILITY GROUPS THAT LACK ADAPTED RESOURCES

The following disability groups are still lacking resources:	Yes
Difficulty seeing	66.7%
Intellectual difficulties	44.4%
Difficulty hearing	38.9%
Physical difficulties	38.9%
Other	5.6%

Teachers were then asked why they thought the schools lacked resources for teaching children with disability. More than three-quarters of respondents thought lack of funds was a problem and an additional one-third thought that little planning is done separately to ensure resources for children with disabilities are provided.

TABLE 103: REASONS WHY SCHOOLS LACK ADAPTED RESOURCES

The reason the school does not have sufficient resources for disability groups is…	Percentage
Lack of funds	77.8%
Children with disabilities are not planned for separately	33.3%
Children with disabilities are not many in number	16.7%
Other	16.7%

Findings in the table above are further supported by the qualitative data as stated by an official from the MoES, *"Although the ministry does provide some materials to special schools and units, mainstream schools are often excluded. Some schools only benefit from support from NGOs e.g. Sight Savers*". It is therefore, not a surprise that funding for inclusive education is lacking in most project schools which as government owned and primarily UPE schools.

Finally, teachers with access to a resource centre were asked how frequently they visit it. More than 40% said they go there every day and another 32% said they go there either 1 or 2 days a week. This indicates that many teachers report that they are using the resource centre if they have access to one.

TABLE 104: FREQUENCY OF TEACHER VISITS TO RESOURCE CENTRES

Frequency of Teacher Visits to the Resource Centre	Percentage
Daily	40.9%

Less than 3 days a week	31.8%

5.5.4 Attitudes and perceptions

Awareness-raising to encourage more positive attitudes and perceptions towards GWDs in the communities and at household level is a key component of the CSU programme. The following sections outline the current situation at baseline from which CSU will build upon through their community-based and household-level education activities.

5.5.4.1 Caregiver Knowledge Attitudes and Practises (KAP)

This section evaluates the knowledge, attitudes and practices (KAP) of care givers towards GWD. The table below presents results of the attitudes of the caregivers towards their girl child by sample group. The results seek to understand what level of career aspirations caregivers hold for their girl child. The results reveal that the majority of the caregivers' in the intervention (88%) and control (97%) would like their girl child to attend a college/university. The results also indicate that most of the parents/care givers of GWDs wish the GWD to grow up to attain further education (44%) or get jobs (39%). This suggests that caregivers generally believe that a child with disability can equally achieve a meaningful life.

TABLE 105: ATTITUDES OF CAREGIVERS TOWARDS THE GIRL CHILD CAREER PROGRESS BY SUBGROUP

Statement	Distribution (%)		P value
	Intervention	Control	
What level of schooling would you like your girl to achieve			0.020
None	2.3	0.0	
Primary	0.0	0.0	
Lower secondary	1.9	0.5	
Upper Secondary	6.5	2.4	
College/University	88.3	96.6	
Don't know	0.9	0.5	
What do you expect your child with disability will grow up to do compared to the non-disabled children			0.002
Further education	44.4		
Get Married	0.0		
Have children	0.0		
Have a job	38.9		
Take care of herself	5.6		
Don't know	11.1		
*** Indicates statistical significance with a Confidence Interval of 95%*			

An individual analysis of the intervention group reveals that the distribution by disability type among the 88.3% caregivers that desire for their children to attain a University education is more less even. Although 70% of caregivers with girls with communication impairments compared to about 90% of those with physical and visual impairments believe their children will progress to University. Additionally, all caregivers with girls with selfcare impairment believe their children will progress to University. Results from the table below indicate that there was no significant relationship between caregiver's desired level of schooling and the disability type.

TABLE 106: LEVEL OF SCHOOLING CAREGIVERS EXPECT THE GWD TO ACHIEVE BY DISABILITY TYPE

Statement	Distribution (%)							P value
	Communi-cation	Hearing	Intellectual	Multiple	Physical	Self-care	Visual	
What level of schooling would you like your girl to achieve								
None	10.0	2.5	4.6	0.0	0.0	0.0	1.5	0.293
Primary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lower secondary	0.0	2.5	2.3	8.3	2.8	0.0	0.0	
Upper Secondary	20.0	10.0	9.3	8.3	0.0	0.0	4.5	
College/University	70.0	85.0	81.4	83.3	97.2	100.0	92.5	
Don't know	0.0	0.0	2.3	0.0	0.0	0.0	1.5	

Table 107 presents the attitudes of caregivers towards the safety of the school environment with respect to child protection and rights. The results suggest that overall there are no significant differences between the responses of the caregivers in the intervention and control sample groups for statements that were posed to the respondents. What is encouraging is that a very low proportion of caregivers in the intervention (10%) and control (12%) groups think that it's acceptable for the girl child not to attend school if the girl needs to work.

TABLE 107: ATTITUDES OF CAREGIVERS TOWARDS THE ENABLING ENVIRONMENT FOR THE GIRL CHILD

Under which of the following conditions do you think it's acceptable for a child not to attend school	Agreed		P value
	Intervention (%)	Control (%)	
Physically harmed or teased at school or on the way	32.7	28.5	0.390
Child may physically harm or tease others at school	25.7	20.7	0.221
Child needs to work	10.3	12.0	0.570
Child needs to help at home	5.1	7.7	0.284
Child is married/getting married	24.8	19.7	0.283
Child is too old	17.8	17.3	0.903
Child has physical or learning needs that the school can't meet	30.8	27.4	0.437
The child is unable to learn	25.2	31.2	0.170
The child is a mother	15.4	17.3	0.600
The weather is bad/rainy	0.5	0.5	0.984
The child is sick	0.9	2.9	0.142
In case of a burial	0.0	1.0	0.238

The table below shows the attitudes of caregivers towards creating an enabling environment for the girl with disability. Results indicated that the caregiver's attitudes were not significantly different by disability type. Interestingly from Table 107, 24% of caregivers believed that it was acceptable for the GWD to leave school if she was getting married. A closer look at the intervention group in table 108 below shows that girls with self-care (33.3%), multiple (33.3%) and visual (31.3%) impairments are more likely to not attend school if this condition is met. It is also important to note that in Table 105 no caregiver in the intervention group though that their child would grow up to get married when compared with the control child.

TABLE 108: ATTITUDES OF CAREGIVERS TOWARDS THE ENABLING ENVIRONMENT FOR THE GWD

	Agreed (%)							P value
	Communi-cation	Hearing	Intellectual	Multiple	Physical	Self-care	Visual	
Under which of the following conditions do you think it's acceptable for a child not to attend school?								
Physically harmed or teased at school or on the way	30.0	27.5	44.2	33.3	22.2	50.0	32.8	0.444
Child may physically harm or tease others at school	50.0	15.0	23.3	25.0	19.4	33.3	32.8	0.197
Child needs to work	0.0	7.5	9.3	8.3	13.9	0.0	13.4	0.899
Child needs to help at home	0.0	5.0	2.3	0.0	5.6	0.0	9.0	0.833
Child is married/getting married	20.0	20.0	20.9	33.3	19.4	33.3	31.3	0.709
Child is too old	20.0	10.0	13.9	8.3	16.7	16.7	26.9	0.371
Child has physical or learning needs that the school can't meet	20.0	22.5	25.6	25.0	33.3	66.7	37.3	0.300
The child is unable to learn	10.0	30.0	20.9	0.0	33.3	50.0	25.4	0.126
The child is a mother	20.0	12.5	9.3	25.0	14.0	16.7	19.4	0.672
The weather is bad/rainy	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.299
The child is sick	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.650
In case of a burial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na

Table 109 assesses the extent of caregivers' understanding of the importance of the GWDs and the readiness of the school environment to provide quality education adapted to cater for the needs of the GWDs. The results indicate that there are very few significant differences in caregivers' attitudes between the intervention and control groups at the school level. That said, the two statements which do show a statistically significant difference are related to community abuse where significantly less people within the intervention arm agree it is not acceptable to have sexual abuse happening in the community. Similarly, significantly more caregivers within the intervention arm agree it is allowed to abuse a child verbally within

their community. Sadly, both intervention (16.8%) and control (17.8%) groups agree that corporal punishment is acceptable in schools and that child beating is allowed at home (50.5% intervention, 48.6% control agree). This suggests more work is required by CSU to educate the caregivers of the supported GWDs on child protection issues.

On a more positive note, the findings suggest that only a small proportion of caregivers in the intervention (6%) and control (3%) groups agree that GWDs should not go to school. The results also suggest that very few caregivers in the both the intervention (22%) and control (20%) agree that GWDs cannot learn the same way as the non-disabled children.

TABLE 109: CAREGIVERS ATTITUDES ON THE IMPORTANCE OF THE GIRL CHILD AND THE READINESS OF THE SCHOOL AND COMMUNITY TO PROVIDE QUALITY EDUCATION TO GIRLS WITH DISABILITIES

Statement	Distribution (%)		P value
	Intervention	Control	
School level			
Agree that girls with disabilities should not go to school	5.6	3.4	0.267
Agree that girls with disabilities cannot learn the same as non-disabled children	22.4	19.8	0.512
Agree that it is not worthwhile for girls with disabilities to learn	4.2	5.4	0.585
Agree that girls with disabilities can be abused (bullied, teased, ill-treated etc.) at school	76.5	73.3	0.457
Agree that non-disabled children do not want to be in the same class as girls with disabilities	46.8	40.5	0.206
Agree that there should be special schools for girls with disabilities	48.3	50.0	0.735
Agree that teachers at school are not able to teach girls with disabilities	1.4	2.0	0.656
Agree that schools do not have enough support staff (e.g. classroom assistants) for girls with disabilities	52.3	54.3	0.708
Agree that girls with disabilities should be in the same class as nondisabled children	84.6	79.0	0.134
Community level			
Agree that child neglect/ abandonment is accepted/acceptable in this area	2.8	2.9	0.960
Agree that sexual abuse is not acceptable in this area	75.1	86.1	0.005**
Agree that it is allowed to abuse a child verbally in our community	6.5	1.9	0.019**
Agree that corporal punishment is allowed in our schools	16.8	17.8	0.795
Agree that child beating is allowed at home	50.5	48.6	0.695
** *Indicates statistical significance with a Confidence Interval of 95%*			

Table 110 indicates the extent of child abuse, exploitation and violence in the community by sample group. It also assesses the caregiver's awareness of the different forms of child abuse and the plausible actions that can be taken to minimise the child abuse. The results suggest that the majority of the caregivers in both the intervention (88%) and control (89%) groups have heard about child abuse. The findings suggest that there are no significant differences among the different types of child abuse across the two sample groups. Physical abuse (58% intervention, 60% control) and child neglect (47% intervention, 46% control) are the most the prevalent forms of child abuse respectively.

The results also show that the majority of the caregivers suggest that sensitisation of parents, communities and children on the rights of children would be the best course of action to reduce instances of child abuse within their communities (64% intervention, 63% control) and that reporting to police is the best course of action should abuse occur in their communities.

TABLE 110: EXTENT IS CHILD ABUSE, EXPLOITATION AND VIOLENCE PREVALENT IN THE COMMUNITY BY SUBGROUP

Statements / Questions	Distribution (%)		P value
	Intervention	Control	
Have you heard of child abuse			0.421
Yes	88.3	89.4	
No	7.0	8.2	
Don't know	4.7	2.4	
Types of child abuse prevalent in the community			
Sexual abuse (defilement, incest, sodomy)	27.6	25.0	0.549
Child neglect	46.7	46.1	0.906
Physical abuse	57.5	59.6	0.656
Verbal abuse	34.1	27.9	0.167
Emotional abuse	19.2	16.4	0.450
Child labour	1.4	0.0	0.087
Denying a child education	0.5	2.9	0.052
Kidnapping	0.5	0.0	0.324
Frequency of occurrence of child abuse in this area			
Daily	21.3	23.2	0.099
Weekly	10.1	15.5	
Monthly	27.4	27.6	
Yearly	21.8	22.1	
Never	19.3	10.5	
Others	0.0	1.0	
Actions that should be taken to minimise child abuse, exploitation and violence			
Sensitization of parents, communities and children on the rights of children	64.5	63.5	0.827
Encourage people to report to the police	36.4	34.1	0.619
Strict laws should be put in place by government	25.2	32.7	0.091
Penalize those who abuse children	21.0	21.6	0.879
Provide parents with counselling	22.4	21.5	0.751
Tighten security in the area	0.5	1.0	0.546
Preach religious morals	0.5	0.0	0.324
Improve people's standard of living	0.5	1.4	0.301
Use boarding schools	0.9	1.4	0.630
Children should stay with their parents	2.3	1.0	0.269
Actions you would take in case a child is abused			
Report to the police	77.7	80.3	0.922
Take no action	0.5	0.5	
Talk and agree with the perpetrator	10.7	10.6	
Confront the perpetrator	10.3	8.2	
Don't know	0.9	0.5	
Ever reported a case of child abuse to the authorities			0.129

Statements / Questions	Distribution (%)		P value
	Intervention	Control	
Yes[70]	23.4	17.4	
No	76.6	82.6	
To whom did you report to?			0.807
Village elder	19.1	22.2	
Area chief	17.0	11.1	
District children Officer	2.1	0.0	
Police	57.4	63.9	
Head teacher	2.1	2.8	
Class teacher	2.1	0.0	
Ever engaged with CSU on child protection			0.008**
Never	66.7	54.6	
Through workshop and materials on child protection and rights	16.7	2.5	
Counselling	5.6	0.8	
Spoke to teachers on how to handle GWD	0.0	1.7	
Don't know	11.1	40.3	
What kind of information on child protection do you feel that you don't have?			
Polices and material/books on child protection and child rights	40.0	63.1	0.013**
Information on how to discipline GWDs	40.0	26.1	0.070
Information on child abuse (how to prevent it, how to handle kidnapping cases)	39.0	50.8	0.139
How to manage Girls/GWD who are in their teenage years	44.2	16.9	0.000**
Don't know	4.2	6.2	0.580

5.5.4.2 School-related, gender-based violence

In the interviews, questions were asked to teachers and head teachers about violence and child protection at their school. These results cannot be disaggregated by intervention or control because the same head teacher is in charge of all learners and teachers have both children with and without disabilities in their classrooms. First, teachers and head teachers were asked if they had ever heard of child abuse; almost all respondents said they had.

TABLE 111: QUESTIONS ABOUT CHILD ABUSE

Questions about Child Abuse	Responses	
	Yes	No
Have you heard of child abuse?	99.5%	0.5%

Teachers and head teachers were then asked several questions about the acceptability of child abuse and punishment in their school. Overall, respondents indicated that child abuse and punishment is not allowed; however, almost 12% of respondents said that sexual abuse is accepted in their area and 19% said that child beating is allowed at home. It is not clear if the teachers fully understood the question about sexual abuse; this should be further explored by CSU during the programme.

[70] 50 out of 214 caregivers to sample children said they had ever reported a case of child abuse to the authorities compared to 36 out of 207 caregivers for intervention. This is could be due to the training caregivers of GWDs have received from CSU enabling them to identify child abuse and raise their awareness of who to report to.

TABLE 112: QUESTIONS ABOUT ABUSE AND PUNISHMENT

Questions about Abuse and Punishment	Responses	
	Agree	Disagree
Child neglect/abandonment is accepted in this area	2.1%	97.9%
Sexual abuse is not accepted in this area	88.4%	11.6%
It is allowed to abuse a child verbally in our community	2.7%	97.3%
Child torture is accepted in this area	2.1%	97.9%
Corporal punishment is allowed in our schools	1%	99%
Child beating is allowed at home	19.1%	80.9%

Respondents were also asked questions about their awareness of any mistreatment of CWDs. It was fairly common for teachers and head teachers to report seeing bullying and teasing of CWDs at school, and almost 28% of respondents also said they had heard about or seen GWDs being abused. Slightly less than half of respondents had engaged with CSU on child protection and feel they need more information about it.

TABLE 113: QUESTIONS ABOUT CHILD PROTECTION

Questions about Child Protection	Responses		
	Yes	No	Don't know
Are you aware of children with disabilities being bullied or teased in school?	40.2%	59.1%	0.5%
Have you heard of or seen cases of girls with disabilities being abused?	27.5%	72.5%	0%
Have you engaged with CSU on child protection?	48.7%	51.3%	0%
Is there any information about child protection that you feel you don't have?	49.7%	50.3%	0%

To further triangulate the data in the table above, respondents were asked a series of open ended questions aimed at collecting qualitative data linked to child abuse. Questions asked ranged from providing examples of CWDs *and GWDs being bullied or teased and what the respondent or the school did about it in both instances; suggesting alternative, violence-free, yet appropriate, ways that teachers use to discipline and correct children; what the respondent would do if they realised a GWD was being abused or bullied and the kind of information they would like to have on Child Protection.*

On the whole, teachers gave appropriate examples of instances were CWDs and GWDs were being bullied and teased and the course of action they had taken which demonstrated that most of them had a good understanding of what child abuse was and even had the confidence and knowledge to report it as presented below:

> *'Children without disabilities call children with disabilities names, but I sensitise them and talk to them'*
> *'They aren't allowed to get involved in some games by fellow learners. We carry out counselling sessions, and even warn the children against it'*
> *'Child neglect, beating girls and child labour are a big problem and I usually report these cases to the police'*
> *'I saw a girl being mistreated by a teacher and I advised her parents to transfer her to another school'*

'Some girls are denied pads by parents. We provide pads to them as a school, but we invite the parents and talk to them about providing the necessary requirements to their children'

On the other hand, a few inappropriate responses were recorded showing that some teachers still need training and further sensitisation on identifying and not participating in child abuse. These responses are shown below:

'One of the teachers beat up a child and injured him; we made him pay the hospital bills and make an apology.'[71]
'One time a girl in my class was being bullied by one boy, but I caned the boy and told him to apologise to the girl. I also sensitised the class on how to relate with the girl'

To create a violence-free school environment and appropriate ways to discipline and correct children, teachers recommended guidance and counselling, becoming friends with the children, asking children to write an apology letter, reporting to parents, denying them the right to play, asking them to apologise verbally. These findings show that those teachers who have engaged with CSU on child protection are informed enough to be able to provide child friendly consequences for bad behaviour without inflicting abuse. However, a few of the teachers unknowingly recommended solutions that would be deemed as child abuse and hence displays the awareness gap (51% have not engaged with CSU on child protection) that needs to be filled through more training on child protection to change the status quo in schools. These responses are paraphrased below:

'Giving light punishments like kneeling down or squatting'
'Denying them some privileges like break time'
'Mopping the classroom'
'Cleaning the compound'

To show that almost half of the teachers interviewed understood the training they received on child protection, '*reporting to the senior woman teacher or the police, providing guidance and counselling to the victim, talking to the parents and or the perpetrator, punishing the abuser, counselling the bullies and asking the bully to write an apology letter'* were some of the actions teachers said they would take once they realised a GWDs was being bullied or teased. Teachers were then asked for the kind of information that they would like to have on Child Protection. This information is summarised below:

'Child protection policies'
'Children's rights'
'Gender equality'
'How to handle cases related to child protection'
'Implementation of policies'
'Methods of protection and from what'
'What to do when a child has been abused'

It can be observed that teachers require additional training on Ugandan and or global child protection policies and how these can be implemented within their classroom and school which can be incorporated in to CSU's training on child protection.

[71] *It is unclear whether this teacher was reported or is still teaching in this school'*

5.5.5 Additional Questions for Girls without Disabilities

The girls without disabilities were asked about their interactions with CWDs and their opinions about CWDs. Their responses can be found in the table below. On the whole, the self-reported attitudes and behaviours of girls without disability are encouraging and show relatively little reported stigmatisation towards children with disabilities.

TABLE 114: PERCEPTIONS OF GIRLS WITHOUT DISABILITIES TOWARDS GWDS BY CLASS SUBGROUP

Questions	Responses			
	P3-P4	*P5-P6*	*P7-S3*	*Average*
Would you like to be good friends with a girl who has a disability?	82%	93%	94%	89.6%
Do you play/spend time with girls even if they look different?	78%	84%	91%	84.3%
Have you helped someone who is disabled?	74%	83%	79%	78.6%
Do you have a friend who is disabled?	66%	59%	71%	65.3%
Do you sometimes call girls names like 'dumb'?	7%	7%	4%	6%
Do you play/spend time with someone who is disabled?	71%	72%	82%	75%
Have you ever talked to a disabled girl?	78%	84%	88%	83.3%
Would you move to another chair if a disabled girl sat next to you?	11%	14%	11%	12%
Are you sometimes mean to other girls?	10%	12%	17%	13%
Do you sometimes tease girls who are different?	3%	3%	2%	2.6%

**The data reflected on this table is from learners who answered "Yes" to these questions.

Governance, environment, attitudes and perceptions is a very broad framework against which to implement a programme as this include both the macro and micro-level factors which influence the *'improvement of sustainability of the supportive environment for learning and transition of GWDs'*. Findings show a mixed response whereby the community and school environment can be both enabling and non-enabling for all children, especially girls, and more especially girls with disabilities. Cultural norms with respect to child abuse and children's rights as well as a lack of information on child protection issues are significant barriers to achieving this intermediate outcome as outlined in the findings above.

5.6 Other Findings

5.6.1 Regression Analysis

Multilevel multiple linear regression analysis was applied to assess the effect of the intermediate outcomes on the girl's literacy and numeracy using weighted aggregate point scores[72].

table 115 shows the results from the regression analysis using aggregate literacy scores as the response variable. The results revealed that the intermediate outcomes life skills, economic empowerment, and governance and environment were not significant predictors of girl's aggregate literacy scores for any grade

[72] The binary variables were reported attendance, teacher quality and sample group whilst the continuous variables were self-esteem, life skills, governance and environment and economic empowerment in the regression model. Separate regression models were carried out for each grade for grades P3 to P7 while for grades S1-S3, a single regression model was carried out since the sample size for secondary school was small for each grade. For some grades in specific school, information on teacher quality was missing and an assumption was made to replace missing information. For example, if a P3 class data was missing on teacher quality it was assumed that the same teacher was responsible for P3 and P4 in that particular school as some schools have multiple grades in one classroom. If no information was available for the corresponding grade cluster, the values were left as missing.

level. The results further suggested that none of the intermediate outcomes included in the regression model were significantly related to the girl's aggregate literacy learning scores for P3, P7 and S1-S3.

The results suggested that school attendance was positively related to better literacy learning outcomes for girls in P4 and P6. For instance, girls who reported that they had missed attending school for at least one day in the week preceding the survey, scored on average 10.25 (SE=, P=0.049) and 9.16 (SE=, P=0.013) less than those who attended all the school days for P4 and P6 respectively.

High self-esteem was also significantly related to higher literacy scores for girls in grades P4, P5, and P6. The results indicated that a unit increase in the self-esteem score for girls in P4 resulted into an increase of 6.50 points (SE=2.11, P=0.002) in the aggregate literacy scores while a unit increase in self-esteem score for girls in P5 resulted into an increase of 5.19 points (SE=1.67, P=0.002) in the aggregate literacy scores.

The results demonstrated that teacher quality was surprisingly negatively related to aggregate literacy scores for girls in grade P4 only (-15.97, SE=5.02, P=0.001) and insignificant for girls in other grades.

Finally, the results also indicated that after adjusting for other variables, girls without disabilities were more likely to have higher aggregate learning scores than disabled girls for only grade P6. On average, non-disabled girls in grade P6 scored 18.55(SE=3.62, P=0.000) points higher than the disabled girls.

TABLE 115: MULTILEVEL MULTIPLE LINEAR REGRESSION ANALYSIS WITH LITERACY WEIGHTED POINT SCORES AS THE OUTCOME VARIABLE

Weighted literacy scores by grade	Intermediate outcomes [Estimate (SE), P value]						
	Attendance [Ref=Not missed a class]	Girl's self-esteem score	Girl's life skills score	Teacher quality	Governance, and environment score	Economic empowerment score	Treatment group
P3	-5.53(7.00), P=0.429	-.09(3.71), P=0.769	5.31(2.74), P=0.053	-7.15(8.14), P=0.380	-1.67(2.47), P=0.499	-2.91(3.12), P=0.351	4.80(7.00), P=0.493
P4	-10.25(5.21), P=0.049*	6.50(2.11), P=0.002*	-2.19(1.75), P=0.212	-15.97(5.02), P=0.001*	-0.19(2.01), P=0.924	-1.94(1.86), P=0.297	9.64(5.66), P=0.089
P5	-1.04(3.56), P=0.771	5.19(1.67), P=0.002*	-0.99(1.37), P=0.469	-3.61(5.01), P=0.471	0.87(1.31), P=0.508	-0.19(1.31), P=0.882	6.35(3.57), P=0.075
P6	-9.16(3.68), P=0.013*	5.52(1.88), P=0.003*	0.71(1.42), P=0.615	-2.45(3.98), P=0.538	2.42(1.44), P=0.092	-0.005(1.72), P=0.998	18.55(3.62), P=0.000*
P7	-4.75(3.11), P=0.127	0.81(1.83), 0.658	-0.11(0.93), 0.909	4.52(3.69), P=0.221	1.18(0.85), P=0.164	-0.78(1.03), P=0.450	4.89(2.56), P=0.056
S1-S3	-7.51(5.10), P=0.141	-.27(3.42), P=0.710	-3.35(2.08), P=0.107	-1.22(6.35), P=0.848	-0.87(1.86), P=0.637	-3.26(4.15), P=0.432	-1.49(4.30), P=0.729
* Implies significant at 5% level of significance							

Table 116 shows the results from the regression model using aggregate numeracy scores as the response variable in the regression model. The results show that, after adjusting for other covariates in the model,

there was no significant relationship between IO 4 (economic empowerment) and girl's aggregate numeracy learning outcomes. The results further revealed that none of the intermediate outcomes included in the regression model were significantly related to the girl's aggregate numeracy learning scores for P3, P.5 and S1-S3.

The results suggested that school attendance was positively related to better numeracy learning outcomes for girls in P4 and P6. Girls who reported that they missed attending school for at least one day in the week preceding the survey scored on average 20.14 (SE=4.53, P=0.000) and 7.45 (SE=3.25, P=0.022) points less than those who attended all the school days for grades P4 and P6 respectively.

High self-esteem was also significantly related to higher numeracy scores for pupils in P4 and P6. The results indicated that a unit increase in self-esteem score for girls in grade P4 resulted into an increase of 9.12 (SE=1.83, P=0.000) in the aggregate numeracy learning scores while a unit increase in self-esteem score for girls in P6 resulted into an increase of 3.34 (SE=1.65, P=0.043) in the aggregate numeracy learning scores.

On the other hand, the findings also revealed that girl's life skills scores and teacher quality were surprisingly negatively related to the numeracy learning scores for girls in P4. For example, a unit increase in life skills score led to a reduction in aggregate numeracy learning scores by 3.03 points (SE=1.52, P=0.046) points. Additionally, being taught by a good quality teacher was associated with a 10.25 (SE=4.36, P=0.019) points reduction in aggregate numeracy learning scores compared to being taught by a poor-quality teacher. On a good note, a unit increase in life skills scores for girls in P7 was associated with an additional 1.78 (SE=0.74, P=0.016) points increase in the aggregate numeracy learning outcomes.

Finally, the results of the numeracy regression analysis also indicated that after adjusting for other variables, girls without disabilities were more likely to score higher than the disabled girls in P6 only. On average, non-disabled girls in P6 scored 7.77 (SE=3.12, P=0.013) points higher than the disabled girls in the same grade.

TABLE 116: MULTILEVEL MULTIPLE LINEAR REGRESSION ANALYSIS WITH NUMERACY WEIGHTED POINT SCORES AS THE OUTCOME VARIABLE

Weighted scores by grade	Intermediate outcomes [Estimate (SE), P value]						
	Attendance [Ref=Not missed a class]	Girl's self-esteem score	Girl's life skills score	Teacher quality	Governance, and environment score	Economic empowerment score	Treatment group
P.3	-6.65(5.64), P=0.238	5.60 (2.97), P=0.059	1.79(2.19), P=0.415	-3.03(5.99), P=0.613	-0.05(1.97), P=0.978	-1.03(2.50), P=0.680	4.71(5.88), P=0.424
P.4	-20.14(4.53), P=0.000*	9.12 (1.83), P=0.000*	-3.03(1.52), P=0.046*	-10.25(4.36), P=0.019*	0.51(1.75), P=0.771	-1.29(1.62), P=0.424	2.69(4.92), P=0.585
P.5	3.40(2.70), P=0.207	2.10(1.31), P=0.108	-0.25(1.04), P=0.810	-3.19(2.89), P=0.270	-0.63(0.99), P=0.524	-1.91(1.02), P=0.062	2.21(2.84), P=0.437
P.6	-7.45(3.25), P=0.022*	3.34(1.65), P=0.043*	0.09(1.27), P=0.943	-0.19 (3.80), P=0.959	-3.18(1.27), P=0.012*	1.77(1.53), P=0.245	7.77(3.12), P=0.013*
P.7	-2.53(2.50), P=0.311	-1.23 (1.47), P=0.402	1.78(0.74), P=0.016*	-0.41(2.99), P=0.892	0.50(0.68), P=0.460	-1.06(0.82), P=0.200	0.33(2.05), P=0.870
S.1-S.3	-0.81(7.22), P=0.911	-6.43(4.74), P=0.176	-0.72(2.94), P=0.807	1.34(10.29), P=0.896	-0.71(2.59), P=0.783	0.44(5.82), P=0.940	-4.56(5.60), P=0.447
* Implies significant at 5% level of significance							

Overall, results from the regression analysis suggest that girl's self-esteem and school attendance were for the most part positively correlated with better literacy and numeracy learning outcomes. This provides evidence to suggest that focussing the programme's resources on improving girl's school attendance rates and self-esteem might have a more positive impact on learning outcomes. There is also a need to investigate why better-quality teaching and good governance were associated with a reduction in numeracy and literacy aggregate scores in the grades they appeared to be significant.

In P6 alone, there is evidence to suggest that disability impacts the girl's learning outcomes. Non-disabled girls performed better than the disabled girls. We anticipate that over time this trend will change and the inequalities in learning outcomes between disabled and non-disabled girls will be neutralized by the programme activities. We did not find any evidence to suggest that economic empowerment improved the girl's learning scores at baseline.

5.6.2 Case study: Boys with Disabilities

A mixed methods approach was also taken to a smaller cohort of boys involved in both quantitative and qualitative assessments. A total of 22 boys from grade P4 to S3 were selected at random to participate in the EGRA/EGMA and SeGRA/SeGMA assessments. In addition, 12 boys from 12 schools supported by CSU, participated in three Focus Group Discussions (FGDs). The discussions focused on: understanding children's access to support provided by CSU, their knowledge of CSU's work, what facilities exist in their schools to enhance inclusion of children with disabilities, and the relationship between children with disability, their teachers, and other children.

FGDs were conducted at the Montrose Office in Kampala due to its centrality, since children were home for the holidays. Written consent to have the children attend the FGDs was sought from their parents and guardians beforehand.

All participants were informed about the purpose of the FGD and their right to leave the discussion at any point if they felt uncomfortable. The discussions were led by two facilitators who spoke the local language. Notes from the FGDs were transcribed verbatim, and a coding analysis done. Below is a summary of the themes that emerged.

Children's understanding of CSU's work

Participants associate CSU with provision of fees and scholastic materials for children with disability. However, some children are not aware that the support they receive, is from CSU. One participant acknowledged receiving various forms of support e.g. fees, books from 'Sandra'. However, he did not associate Sandra with CSU, even though she is a staff member. Another stated, *'My grandmother does not get direct support from CSU but was happy that I got a sponsor.'*[73] Unbeknownst to him, the 'sponsor' is CSU.

Learning

Whilst according to FGD participants, teachers taught all children without deliberate discrimination, overall, boys with disability scored lower in both EGRA/SeGRA and EGMA/SeGMA compared to boys without disability as shown in Table 117 below. The widest disparity is in EGMA/SeGMA, amongst boys in P6, where the mean score for boys with disability is 41 compared to 76 for those without disability. Whilst there are not enough boys sampled to make any meaningful comparisons with GWD, it is interesting to note that whereas the GWD see a slight decrease in ability around P7, the few boys sampled are not showing the same trend. This could be because boys develop slightly later than girls with respect to puberty and this could affect their ability to concentrate at school, the level of chores they are expected to carry out at home and how much time they have to complete homework. That said, this could be coincidental given the small number of boys sampled compared to girls so robust conclusions cannot be made in this instance.

[73] Participant from Kiswa Primary School

TABLE 117: BOYS MEAN SCORES FOR INTERVENTION GROUP AND CONTROL GROUP

Grade	Mean scores for intervention group and control							
	No. of boys		EGRA/SeGRA			EGMA/SeGMA		
	Treatment	Control	Intervention	Control	SD	Intervention	Control	SD
P3	0	0	0	0	0	0	0	0
P4	6	6	43	66	29	67	71	13
P5	9	9	33	52	19	56	72	20
P6	4	4	42	51	31	41	76	17
P7	2	2	53	64	25	38	39	4
S1	0	0	0	0	0	0	0	0
S2	0	0	0	0	0	0	0	0
S3	1	1	66	70	0	46	69	0
Total	**22**	**22**						

IO1: Attendance

As can be seen from table 118 below, there is little difference between the average intervention and control boy who reported they missed school within the last week. Whilst on average 35% of boys reported to have missed school the previous week, this is comparable to girls where 37.5% reported to have missed school the previous week. Given that the boys sample is so small it is likely this is just coincidence and not a reflection of gender differences.

TABLE 118: BOYS' ATTENDANCE

	Intervention (Baseline)				Control (Baseline)			
Attendance	*P3- P4*	*P5– P6*	*P7- S3*	*Average*	*P3- P4*	*P5- P6*	*P7- S3*	*Average*
Learner missed school within the last week	20.0%	55.6%	0.0%	35.0%	25.0%	40.0%	0.0%	31.2%

**This table represents data taken from the pupil context interview*

Infrastructure to support inclusion of boys with disability

Schools have latrines with large doors and ramps to improve access for children in wheelchairs. However, children in two schools pointed out their latrines have large holes which made it difficult for CWDs to use. Teachers were wary of children with disability using these toilets. Most schools had wash points near the toilets that are accessible for children.

IO2: Teaching Quality: Relationship between boys with disabilities and teachers

Participants reported that teachers and children have a good relationship. No example of discrimination by teachers was cited. Even though corporal punishment is illegal, teachers still cane learners if they disobey school rules or go against classroom etiquette. However, participants noted that those with physical or visible disabilities are reported to parents instead, because teachers are usually unsure of the nature of disability, and therefore do not want to take the risk of exacerbating their condition.

The relationship between teachers and pupils is top-down. Teachers lay down rules and instruct, and pupils follow. Pupils generally find teachers difficult to approach. This is characteristic of most schools in Uganda

and is no different for the boys who participated in the FGD. One participant indicated that he struggles to read what one of his teachers writes on the blackboard even though he sits at the front of the class. His teacher writes on the board in very small letters. When asked if he had spoken to his teacher about it, his answer was no, because he is afraid. His response was '*If I approach him, I could get caned.'* Therefore, fear of corporal punishment is a barrier to accessing appropriate, inclusive education and, as a result, a barrier to learning.

For another pupil, the teacher noticed he could not see while sitting at the back of the class and transferred him to the front. This helped for a while, but his sight has continued to deteriorate. He noted that sometimes he struggles to see large objects that are very close. He has never been taken for an eye check-up.

IO3: Self-Esteem: Boys with disabilities

It is difficult to draw conclusions from table 119 below as there are so few boys in both the intervention and control arm. Overall it appears the average results are similar between the control and intervention groups. Any extreme differences are as a result of there being very few participants in each sub-category. For example, there was only one boy in the P7-S3 category so if the intervention boy answers yes and the and the control boy answers no then the results are 0% or 100% which looks misleadingly extreme.

TABLE 119: BOYS' SELF-EFFICACY BY SUBGROUP

Self-efficacy	Intervention (Baseline)				Control (Baseline)			
	P3- P4	*P5– P6*	*P7- S3*	*Average*	*P3- P4*	*P5- P6*	*P7- S3*	*Average*
I think I will pass PLE/UCE/UACE at the end of P7/S4/S6	100.0%	100.0%	100.0%	100.0%	100%	100.0%	100.0%	100.0%
I am able to do things as well as my friends	100.0%	77.8%	100.0%	90.0%	100%	100.0%	100.0%	100.0%
If I study hard at school, I will be rewarded by a better job	100.0%	100.0%	100.0%	100.0%	100%	100.0%	100.0%	100.0%
I get nervous when I have to read or do maths in front of others	50.0%	44.4%	0.0%	45.0%	25.0%	44.4%	100.0%	43.7%
If I do well in a test, it is because I am lucky	60.0%	55.6%	100.0%	60.0%	50.0%	60.0%	50.0%	56.2%

IO4: Economic Empowerment: Household characteristics

When looking at the economic empowerment of the household heads by intervention and control, there are only two differences – one which suggests that the intervention boys' families tend to spend more than they make each month compared to the control group and the second which suggests the intervention boys' families are more likely to have an emergency fund. However, conclusions cannot be drawn from this small sample and so this may be likely occurring just through chance alone as shown in the table below.

TABLE 120: DISTRIBUTION OF HOUSEHOLD ECONOMIC PRACTICES BY SUBGROUP GROUP

Characteristic	Intervention (%)	Control (%)	P value
I spend less money than I make each month			
Always or most of the time	30.0	0.0	0.019**
Sometimes	15.0	25.0	
Rarely	25.0	6.3	
Never	30.0	68.7	
Don't know/no response	0.0	0.0	
I have an emergency fund to cover for unplanned expenses			
Always or most of the time	30.0	6.3	0.020**
Sometimes	10.0	25.0	
Rarely	25.0	0.0	
Never	35.0	68.7	
Don't know/no response	0.0	0.0	
I pay my bills on time			
Always or most of the time	20.0	25.0	0.961
Sometimes	15.0	18.7	
Rarely	35.0	31.2	
Never	30.0	25.0	
Don't know/no response	0.0	0.0	
What are the different sources of income in this household?			
Paid job	40.0	62.5	0.878
Person's own business/self-employed	75.0	68.7	0.677
Letting land or real estate for rent	0.0	6.2	0.257
Pension	0.0	0.0	1.000
Disability benefit	0.0	0.0	1.000
Unemployment benefit	0.0	0.0	1.000
Family benefit	0.0	0.0	1.000
Money or aid from relatives or friends	0.0	0.0	1.000
Cheshire Uganda	5.0	0.0	0.364
Agriculture	5.0	0.0	0.364

IO 5: Governance, Environment, Attitudes and Perceptions: Relationship between boys with disabilities and other children

Participants noted that while most children do not discriminate against others with a disability, there are those who will not play, or walk home with them. This indicates a need for continuous sensitisation on the rights of children with disabilities within community and school settings.

Due to the small sample size, it is difficult to draw any statistically significant, and therefore generalisable, conclusions from this analysis. That said, when it comes to disability, gender inequalities are often less pronounced, and the inequality between disabled and non-disabled becomes the key determinant of

marginalisation. Therefore, CSU should continue to support boys with disabilities to ensure a gender sensitive approach to their GEC-T project.

5.6.3 Enumerator Observations of Learners During the Assessment

At the end of each learner assessment and interview, the enumerator was given the questions to assess how the child behaved during the course of the assessment process and the learner context interview. The results are presented below. They are based purely on the enumerator's/assessor's opinion of his/her interaction with the learner during this process.

TABLE 121: SUMMARY OF ENUMERATOR OBSERVATIONS OF THE LEARNERS BEHAVIOUR DURING THE INTERVIEW

Questions	Responses					
	Intervention			Control		
	P3-P4	P5-P6	P7-S3	P3-P4	P5-P6	P7-S3
Did the learner maintain regular eye contact throughout the survey?	90%	90%	91%	95.4%	96%	90%
Did the learner readily answer the questions?	82%	92%	95%	90.8%	99.2%	98.7%
Was the learner difficult to understand?	15%	9%	8%	7.7%	2.4%	6.5%
Did the learner make you repeat the questions more than three times?	21%	18%	13%	7.7%	4%	9.1%
Is learner wearing shoes and a school uniform?	98%	98%	99%	98.6%	98.5%	98.7%
Did the learner's clothes appear dirty?	8%	8%	7%	8.2%	6.2%	11.7%

***The data reflected on this table is from enumerators who answered "Yes" to these questions.*

6 Conclusions and Recommendations

6.1 Conclusions

The following section aligns conclusions to the Theory of Change focussing on Outcomes and Intermediate Outcomes.

6.1.1. Outcome 1: Learning

On the whole, results in literacy and numeracy for learners in both the intervention and control groups were poor, demonstrating below grade level achievements in both literacy and numeracy. Learners did not perform up to expectation in any of the designed subtasks or performance standards for their grade levels in either literacy or numeracy. This is not due to unrealistic expectations or content that is too difficult for learners to comprehend and complete. Rather, it is due to the overall poor learning quality and limited achievement outcomes in most schools. It is important to note that these findings are not surprising in Uganda, given that the majority of learners around the country perform poorly on similar assessments at all levels of the primary and secondary education system. For example, a study conducted in Uganda by RTI found that the majority (48.9%) of P3 learners had a WPM rate of between 1-20 words with an average

of 16.3 WPM[74]. This suggests there is a major crisis in learning in schools and classrooms across Uganda affecting all children – not just those with disabilities. That said, when looking at the weighted average differences between treatment and control groups who are achieving grade level or above percentage scores in those EGMA and EGRA subtasks that were consistent throughout all the grades it can be seen that the control group were scoring an average of 7%, 15% and 3% more than the treatment group for mathematical word problems, oral reading fluency and reading comprehension respectively.

Developing Literacy Skills

By the time they reach P3 and P4, learners perform well on the foundational literacy skill of letter sounds. However, this is a key skill that learners in P1 or P2 should be able to perform; so, while their performance is positive, achievements are below grade level expectation. The majority of P3 learners were rated as non-learners in the oral reading fluency (51.9%) and comprehension (74.1%) subtasks; 62.2% of P4 learners also performed at non-learner status in the comprehension subtask. This is well below grade level expectations, as learners should be readers by the time they are in P3 and P4. More P4 learners performed at emergent levels in the oral reading fluency (45.9%) and comprehension (27.0%) subtasks than children in P3 (40.7% and 18.5% respectively). However, less than 14% of learners in either grade ranked at established or proficient levels in reading or comprehension subtasks (see **Table 32** for more details). *This means that they are performing far below expectation and are unable to read or understand text by midway through primary school.*

Learners in P5 and P6 demonstrate a logical progression from non-learner to proficient across grade three subtasks of increasing difficulty. The majority of P5 learners were rated as emergent in the oral reading fluency (P5- 41.79%) and comprehension (P5- 37.31%) subtasks. The majority of P6 learners were rated established in the oral reading fluency (P6- 41.4%) and emergent in the reading comprehension sub-task (P6- 37.31%). However, less than 10% of learners in either grade ranked at proficient levels in reading or comprehension subtasks. *This means that they are still not reading with the degree of fluency or comprehension expected at these grade levels.*

Between 40%-80% of P7-S3 learners performed at proficient levels on the grade three oral reading fluency subtask on the EGRA; more performed at emergent and established levels on reading comprehension. It is worth reiterating that both the oral reading fluency and the reading comprehension tasks were from the EGRA tests and so targeted at a P3-level learner. Therefore, whilst it is positive that the P7-S3 learners were achieving emergent, established and proficient levels, given the level of the test is far below their current education, these results are not as positive as they might appear. Results on the SeGRA – which was testing at a P5 level - were poor for P7 and S1 learners, who performed at mostly non-learner or emergent status in the reading comprehension subtasks. Learners in S2 performed at emergent or established levels on reading comprehension subtasks. S3 learners performed at either non-learner or proficient status in reading comprehension; it is important to note that these vast differences in outcomes for S3 learners are a consequence of a very small sample size, with the few learners in the sample performing at vastly different levels. Less than 15% of learners from P7-S2 performed at proficient levels in any SeGRA subtask. *In summary, this means that P7-S3 learners are performing far below expectation and are unable to read and understand texts below their grade level.*

Developing Numeracy Skills

By the time they reach P3 and P4, a large percentage of learners performed well on the number identification and discrimination subtasks. However, this is a key skill that learners in P1 or P2 should be able to perform; so, while their performance is positive, achievements are below grade level expectation. P3 learners generally performed at non-learner status on more complex subtasks like missing number (44.4%), subtraction (27.0%) and word problems (37.0%); few (3.7%-18.5%) performed at proficient levels on any of these subtasks, though they are tasks learners in that grade should be able to perform. P4 learners demonstrated similar progression, but with less than 21.6% of learners ranking in the non-learner

[74] file:///C:/Users/charl/Downloads/EGRA_Uganda_FINAL_121410.pdf

category across all subtasks. A greater number of learners in P4 also performed at proficient levels in these subtasks. *In summary, this means that P3 and P4 learners are performing below grade level expectation in all key subtasks on the EGMA.*

A large percentage of both P5 and P6 learners performed well on the number identification and discrimination subtasks. Again, this is a key skill that learners in P1 or P2 should be able to perform; so, while their performance is positive, achievements are well below grade level expectation. *Generally, P5 and P6 leaners demonstrate capacity on lower level numeracy tasks and poorer proficiency on higher level subtasks; however, all performance was below grade level expectation.*

Learners from P7 to S3 demonstrate a logical progression from emergent to proficient across subtasks of increasing difficulty. Overall 76.4% of P7 learners performed at emergent status on the SeGMA subtask 1, which is set at P5 level difficulty. S1-S3 learners generally performed at emergent status on the SeGMA subtasks, which is below grade level expectations. Less than 15.0% of learners from S1-S3 performed at proficient level in any SeGMA subtask. *In summary, this means that learners are not able to perform advanced multiplication and division, algebra, and data interpretation subtasks.*

Literacy and Numeracy Results by Disability Type

Learners with identified difficulties in self-care performed the worse on average in the P3-P4 cluster in both numeracy and literacy assessments, the worst in the P5-P6 cluster in numeracy, and the worst in the P7-S3 cluster in literacy. Learners with multiple disabilities performed worse on average in the P5-P6 cluster in literacy. Learners with difficulties communicating in the P7-S3 cluster performed the worst on average in numeracy.

Learners with hearing and visual disabilities performed the best on average in the P3-P4 cluster in literacy and numeracy. Learners with hearing disabilities performed the best on average in the P5-P6 and P7-S3 clusters in literacy. Learners with difficulties communicating performed the best on average in the P5-P6 cluster in numeracy, while learners with physical disabilities performed the best on average in literacy in the P7-S3 cluster.

Generally, students with visual, physical, intellectual and multiple disabilities demonstrated a range of performance across grades in both literacy and numeracy assessments, with no clear consistency in performance.

Having said the above, at baseline, it is not possible to tell whether a learner's disability is the main cause of their overall poor performance on the assessments, as results were quite mixed and comparison group learners often performed equally as poorly, with a large spread in performance across aggregated weighted scores. Further analysis regarding the effect of a child's disability on their performance will happen at midline and endline and must be further explained and confirmed with ongoing monitoring data on learning collected by CSU throughout the programme.

6.1.2. Outcome 2: Transition

As this is the baseline evaluation, the results of transition are based upon self-reported rates of learners who, when asked, stated to have been in the same class the year before. This data, whilst useful, is not entirely reliable as there are always possible challenges with mis-reporting. The results suggest an overall transition rate of 60.7% for intervention learners compared to 76.9% for control learners. This indicates that 16.2% more control group learners have successfully transitioned compared to the intervention group, although the same number of intervention and control learners managed to successfully transition from primary to secondary school.

Going forward transition will be tracked in a more rigorous process as Montrose follow the cohorts of intervention and control learners throughout the 7-year programme as they move through primary and secondary schools and into TVET institutions or further education as applicable.

6.1.3. Outcome 3: Sustainability

A sustainability score matrix has been developed against which Montrose can assess the progress of CSU interventions over the 7-year programme. The scoring matrix has been segregated by Community, School and System each with clear indicators identified along with benchmark measurements for categories 0-4. At the baseline stage Community is scoring '1-Latent', School is scoring '0/1-Negligible/Latent' and System is scoring '0-Negligible'. This is to be expected as these interventions are just beginning and so the impact of these activities is not yet visible. In subsequent midline and endline evaluations these scores should be seen to increase as a result of the CSU GEC-T interventions.

6.1.4. Intermediate Outcome 1: Attendance

When asked, 37.8% of learners in the intervention group and 45.4% of learners in the control group reported missing school at least once in the past week. This suggests that the provision of school fees by CSU is already having a positive effect on learner attendance compared to the control group. However, this could also suggest that barriers to improved attendance are broader than just financial support. Learner attendance should be carefully monitored, and strategies taken to improve the average attendance rate, as poor attendance has a direct, negative effect on overall learning. Without having access to teacher and learner registers it is difficult to assess the extent to which both teacher and learner attendance is a true barrier to learning. It is hoped that over the 7-years of GEC-T implementation, Montrose will build a relationship with the schools through working closely with CSU to encourage head teachers to share this information and ensure a more accurate picture of attendance than self- and learner- reporting.

6.1.5. Intermediate Outcome 2: Teaching Quality

Teachers described both positive and negative situations regarding how children with disabilities are treated by the school administration. Some teachers reported that CWDs had equal opportunities in admission and extra-curricular activities, and that they were not discriminated against. Other teachers reported that CWDs are denied equal opportunities, isolated and discriminated against. These results show that although some positive reports indicate CWDs are thriving at school, other reports show that they still face challenges and stigma. Classroom observations revealed that non-disabled learners are sometimes cruel to CWDs and laugh at them in the classroom. This shows that more can be done by teachers to create a friendly, inclusive classroom where all children feel welcome and safe to participate.

Whilst 95.2% of teachers said they felt they could get through to even the most difficult and unmotivated students with disabilities if they try really hard, 96.8% of teachers also said they felt that students with disabilities will never perform well academically, regardless of the support given to them. In addition, 74% of teachers also felt that their students with disabilities were not making any academic progress. An additional 85% of teachers think CWDs should be sent to a special school with the necessary resources to educate them rather than keeping them in a mainstream school. Their responses are contradictory and show that teachers know they are expected to be able to educate children with disabilities, but when probed further are hesitant and negative towards teaching CWDs – possibly due to their lack of resources and knowledge to fully accommodate these learners.

Classroom observations revealed that 97% of teachers did not use resources specifically adapted for teaching children with disabilities and 88% did not use resources sufficiently across all disability types. This demonstrates that there is significant room for improvement so that learners of all abilities can benefit from learning resources irrespective of their specific disability.

Girls and children with disabilities are very likely to be generally engaged in classroom activities, listening attentively, and contributing to whole class discussions, but less likely to participate in small group

discussions or lead small groups. They are also relatively unlikely to ask their peers or the teacher for help. These findings show that although girls and CWDs are interested in the lesson and do contribute to lesson discussions, they often do not engage effectively with the teacher or their peers in closer settings. Girls and GWDs' behaviour during lessons should be monitored during the CSU programme to find out how to help them be more comfortable and engaged with others in the classroom. Most teachers call on and praise boys and girls equally, but when they don't, they call on and praise girls more frequently than boys. The majority involve children of all abilities in lesson activities, call on all children equally and praise all children equally. However, one-quarter of teachers call on children without disabilities more frequently than CWDs, demonstrating that some improvement is necessary to ensure all teachers are using inclusive practices in the classroom. Although 81% of learners with disabilities were engaged during the lesson, able and less able learners were only paired together 35% of the time, indicating that more can be done to encourage inclusion within the classroom by integrating learners with varying abilities into the same groups.

6.1.6. Intermediate Outcome 3: Self-Esteem

Control group students were more likely than the GWDs to think they would pass their exams (control: 95.7%; intervention: 97.4%), feel they can do things as well as their friends (control: 95.1%; intervention: 91.3%) and will be rewarded with a good job if they work hard (control: 97.7%; intervention: 90.0%). However, the control group were also more likely than intervention group students to get nervous when reading or doing maths in front of others (control: 46.0%; intervention: 41.2%). With respect to self-esteem issues relating specifically to being disabled, 45.0% believe others think they cannot achieve much in life as a result of their disability and 38.6% believe having a disability has spoiled their life. Self-esteem should be closely monitored in the programme to ensure interventions are gearing at developing girls' positive attitudes towards their abilities and performance, as they will prove a critical factor to their success in school.

With respect to key Life Skills, families hold the most decision-making power about their girl child's education and future working life. Interestingly control girls without disabilities reported feeling less agency when it came to the decision as to who decides whether or not they will continue in school (control P7-S3: 9.1%; intervention P7-S3: 16.1%). However, on the whole both groups felt left out of decisions concerning their future, which are decided by their parents/guardians (control P7-S3: 85.7%; intervention P7-S3: 72.4%). This shows an opportunity to engage parents/guardians on the merits of including girls in decisions made about their lives, so they can be more motivated and potentially more fulfilled.

6.1.7. Intermediate Outcome 4: Economic Empowerment

Economic empowerment is, for the purposes of this report, defined as the capacity of women and men to participate in, contribute to and benefit from growth processes in ways that recognise the value of their contributions, respect their dignity and make it possible to negotiate a fairer distribution of the benefits of growth.

Economic empowerment is a somewhat relative term and comparing our intervention and control groups, both of whom reside in lower socio-economic areas, has shown that there are similarities between the two groups. Overall, findings suggest that most households regularly spend more money than they earn in both the intervention (54%) and control (56%) groups and only 2 in 10 households have the ability to regularly pay bills on time. This highlights that at school level, the schools selected to benefit from this project – and the children learning within them – are amongst the most vulnerable and marginalised in Kampala.

6.1.8. Intermediate Outcome 5: Governance, Environment, Attitudes and Perceptions

Whilst at national and higher-level policy there is evidence of institutional frameworks, funding for specialised adapted learning materials, a SNE task force and willingness by key leaders to reduce barriers to education for CWDs, enormous challenges still exist, particularly where competition for limited public resources are concerned. Schools do not receive earmarked funding for inclusive education. As a result, mainstream schools which enrol CWDs struggle to meet their needs and this in turn affects attendance, transition and therefore learning outcomes.

With respect to governance at school level, all schools report that they track learner attendance. This practice should be confirmed, monitored and sustained throughout the programme to ensure accountability and tracking of vulnerable children. Head teachers are significantly less likely to speak to a teacher who misses school than to ask another teacher at school to approach the absent teacher. This indicates that some head teachers either do not take teacher accountability as a priority or do not feel empowered to speak to the teacher themselves. Head teacher responsibility is essential for a well-functioning school with present and engaged teachers. Head teachers' actions and attitudes should be closely monitored during the CSU programme.

Head teachers reported that over 60% of school PTAs have representation by parents of children with disabilities. This number is high and needs verifying. If correct, these results are encouraging, although the project will verify them. Ideally this number will rise as more parents of CWDs join PTAs and represent the interests of their children and the interests of other CWDs. Although the majority of schools have an inclusive education policy, the majority do not have an inclusive education manual and have not had teacher exchange visits to share inclusive education practices through peer-to-peer learning.

With respect to caregiver attitudes and perceptions, most parents/care givers of GWDs wish their child to grow up to attain further education (44%) or get jobs (39%). Similarly, only a small proportion of caregivers in the intervention (6%) and control (3%) groups agree that GWDs should not go to school with very few caregivers in both the intervention (22%) and control (20%) groups agreeing that GWDs cannot learn the same way as the non-disabled children. This suggests that caregivers of both disabled and non-disabled children believe that a child with disability can equally achieve a meaningful life.

That said, child protection and child rights remain an issue as significantly more caregivers within the intervention arm agree it is allowed to abuse a child verbally within their community and, sadly, both intervention (16.8%) and control (17.8%) groups agree that corporal punishment is acceptable in schools and that child beating is allowed at home (50.5% intervention, 48.6% control agree).

In addition, while teachers and head teachers indicated that child abuse and punishment is generally not allowed in their communities, almost 12% of teachers said that sexual abuse is accepted in their area and 19% said that child beating is allowed at home. This indicates a child protection issue that can negatively impact the emotional and academic lives of all children. Despite the general findings that child neglect, sexual abuse, verbal abuse, child torture, corporal punishment and child beatings are reportedly fairly uncommon, about 40% of teachers and head teachers are aware of CWDs being bullied at school and 28% have heard about or seen cases of GWDs being abused. This shows that improvements can be made to ensure CWDs are safe and protected - both in school and at home - by all members of the community. This suggests more work is required by CSU to educate the caregivers of the supported GWDs on child protection issues.

6.1.9. Marginalisation and Gender

The CSU project sits firmly within the GESI Sensitive category of the GEC-T GESI continuum somewhere between GESI Accommodating and GESI Transformative. This is because whilst CSU aim to actively transform inequalities between girls with and without disabilities, their project is not aimed at reducing inequalities between all socially excluded and marginalised groups. At this initial baseline stage there does not appear to be any significant risks to the project approach becoming less GESI sensitive given the specific focus on CWD which is fundamental to the project design and Theory of Change.

The CSU programme is more strongly focussed on addressing inequalities between children with disabilities and children without disabilities than in addressing gender inequalities. Gender inequalities relates to both boys and girls being treated differently on account of their sex. The majority of the CSU

beneficiaries are girls, and, due to this being seen as unfair towards boys with disabilities, the project design has factored in a proportion of boys to be supported to reduce this inequality and ensure the project design is more gender sensitive.

As outlined above, with respect to economic empowerment, both control and intervention groups are amongst the lowest socio-economic groups in Kampala and thus amongst the most marginalised. With the addition of disability, the project beneficiaries are without doubt some of the most marginalised within Kampala and arguably, within Uganda.

6.1.10. The impact of the baseline findings on the project Theory of Change and Logframe

As part of the external evaluation support, Montrose worked with CSU to review the original ToC and logframe as it was felt that there were significant barriers or linkages between Outcomes, Intermediate Outcomes and Outputs which were missing. For example, having Self-Esteem as the only IO to contribute towards the transition outcome was an assumption which was too tenuous to be achievable as there are more significant barriers to transition such as family's ability and willingness to pay for school fees which would not fall under self-esteem. Findings from the evaluation support this assumption as many GWD described their agency as minimal when it came to deciding whether or not to continue in school and that their family held most of this decision-making power, even though findings in this evaluation report show GWDs self-esteem at baseline is better that that of the control girls. It was critical that these revisions occurred prior to the baseline evaluation as the ToC and logframe indicators formed the basis of the tool development and thus the data collected for analysis.

Where the baseline results have added value is with respect to further understanding the complexity of inter-linkages between outputs, intermediate outcomes and outcomes. For example, the intermediate outcome regarding teaching quality will inevitably link also to the transition outcome as the attitudes towards CWD expressed in the findings of this report demonstrate that many teachers have pre-existing ideas about whether CWD will transition through school and these misconceptions could impact on whether the teacher suggests a particular CWD has to repeat a class or not. Similarly, Output 1 (2,060 GWD receive direct support to contribute to retention in school) and Output 5 (increased family income and willingness to pay for education of GWD) are intrinsically linked to both learning, transition and sustainability as without payment of school fees by either CSU or the girls' family there will be poor attendance, which leads to reduced learning and decreased opportunities for transition. The foundations of the sustainability of the programme will be built upon CSU being in a position to phase out support to school fees by the end of the project as a result of the strengthening of the state, system, community and household which will have occurred.

Overall the findings in this report support the relationships, barriers and assumptions in both the ToC and the Logframe [75]. Similarly, findings confirm the logical linkages and progression between outputs, intermediate outcomes and outcomes which underpin the theory behind the intended change that will occur as a result of CSU's interventions.

6.2 Recommendations

The main focus of this report, at the baseline stage, is on the current situation prior to project interventions. As a result, learning outcomes have featured more heavily in this evaluation than transition and sustainability outcomes which will be more easily observed and analysed at midline and endline evaluation points once the intervention cohort has begun to transition from this starting point. Therefore, the following recommendations are based largely upon improving learning outcomes with the theory being that by improving learning and reducing inequalities between girls with and without disabilities, this will have a positive effect on both transition rates and the longer-term sustainability of the programme through behaviour and attitudinal change.

[75] See Annex 1 for baseline results by logframe indicator

1. Based on the learning test results presented in this report, clearly major interventions are required to raise learning outcomes and literacy and numeracy results amongst learners at all levels of the CSU programme. However, improving instruction and pedagogical practices amongst teachers in literacy and numeracy requires a highly technical and intensive intervention that demands a large degree of expertise and focus. CSU should reflect on its approaches to this and identify what support it can effectively give teachers to help them improve their instructional capacities within the framework of the programme. Actions include:
    - CSU should contract a specialist teacher training organisation to work intensively with the teachers to improve their instructional capacity and pedagogical practises
    - Through this contracted teacher training organisation CSU should train headteachers on teaching quality and inclusive education. They should establish a monitoring mechanism/checklist for headteachers to ensure those teachers who are trained are continuing to implement the practises they have been taught
    - To increase sustainability CSU should work with the MoES school inspectors to support them with training on lesson observations with respect to inclusive education and good pedagogical practises

2. Some low or no cost interventions can also significantly improve learning outcomes through simple approaches to developing the learning environment where children attend school. For example, ensuring that the attendance of learners and teachers improves is a simple – and effective – way to provide more time for learning to happen. Focusing on improving teacher time on task in the classroom, including things like effective learning strategies, use of appropriate resources, grouping strategies and student-centred learning techniques can help to improve the learning environment so that children are challenged to guide their own learning process and engage in self-directed tasks that develop their critical and creative thinking skills, as well as core literacy and numeracy knowledge. Actions include:
    - Provide teachers with model lesson plans which include effective learning strategies such as child-centred techniques and use of appropriate resources for all children including CWD
    - Monitor teachers own lesson plans each week to ensure they have provided for CWD and other marginalised groups and that they are actively employing the appropriate teaching and learning strategies
    - Provide teachers with adapted materials for CWD and other essential classroom materials to facilitate learning in a creative way to develop children's critical thinking skills

3. Getting parents on board with home learning tasks such as reading together or providing designated homework space and time each day, involvement in school activities and class visits, and improving parents' overall support and positive attitudes towards their children's education can also have a significant, positive effect on learning outcomes. Actions include:
    - Support the Parents and Teachers Associations (PTAs) to ensure they are more effective through developing governance documents, ensuring the head teacher is accountable to the PTA
    - Hold meetings with parents to stress the importance of learning at home with their children
    - Each child should be sent home with reading and maths to do with their parents in the evenings

4. Overall, a collection of key interventions geared at holding learners, parents, teachers and schools accountable within their roles for improving learning and instilling a culture of success and making every day count will be the most successful way that CSU can ensure learning outcomes improve over the course of the programme. Actions include:
    - Work with the PTAs and school governors to ensure meetings happen regularly and that parents are engaged and committed to holding the head/teachers to account for its performance
    - Encourage PTAs to fund-raise for infrastructure improvements, to support with their time to monitor the teaching practises through using lesson observation checklists

- Work with PTAs to monitor both child and teacher attendance rates to ensure the school is improving in its attendance levels

5. Although close to 100% of teachers say they change the physical environment and the way they communicate in the classroom to adapt to learners with disabilities' needs, this was not observed in most lesson observations. In addition, only half of teachers make schemes of work and assessments that provide for children with disabilities. More work can be done to help teachers understand what is required to teach CWDs effectively and how to adapt their lessons and tests to accommodate CWDs. Action needed:
    - CSU does not have an Inclusive Education manual for either training of teachers or guiding teachers once they have been trained to support the implementation of the IE learning they received. CSU should develop both of these documents, print them and disseminate to all teachers supported through this programme
    - CSU should ensure their Project Officers who visit each child each week spend time in the classrooms working with the co-teachers to ensure they focus their time supporting those children who have learning difficulties, so they get the 1-2-1 support they require

6. Teacher and learner attendance and time on task in the classroom should both be monitored during the CSU programme to see if these results improve as daily teacher/learner attendance and classroom engagement has a significant impact on overall learning outcomes. Actions include:
    - Attendance of teachers and learners should be closely monitored by CSU
    - Any teachers found to be off work regularly or for extended periods without the necessary documentation to support their absence should be reported to the head teacher, PTA, KCCA and MoES
    - Any learners who are found to be off school regularly or for extended period should eb followed up by CSU Project Officers.
    - CSU Project Officers should complete a classroom observation checklist every time they visit the school which is at least once a week. The outcomes of this should be discussed with the teacher, headteacher and CSU to monitor changes over time with respect to the use of IE and good learning strategies

7. Teachers mainly used appropriate disciplinary measures such as gestures, body language and verbal warnings to correct misbehaving learners. Still, 10% of teachers exhibited anger towards a child and 3% used corporal punishment to discipline a child in the presence of an enumerator. CSU should closely monitor the disciplinary methods used in classrooms over the course of the programme to ensure corporal punishment is completely stopped, and hostility is reducing and not increasing. Actions include:
    - CSU should take a firmer stance on corporal punishment and should report any cases arising in the schools they support to the police immediately
    - CSU should then follow up on these cases to ensure those teachers are no permitted to resume work after the offense
    - All instances of child abuse should be documented and presented to MoES and KCCA

The following table will assist CSU in prioritising which recommendation to take forward first. Each recommendation above is rated out of 5 for impact on the programme and out of 5 for ease of implementation. A final score which multiplies the two previous ratings will show a higher number for those recommendations which will be higher impact and easier to implement and a lower number for those recommendations which are lower impact and harder to implement. This rating system will hopefully enable CSU to prioritise according to whether they wish to start with either the low hanging fruit, which are easier to implement but may not have the impact, or the slow-burner recommendations, which require more time and resources but may have a greater impact in the longer-term. Colour coding in the form of a RAG (Red Amber Green) rating has been added to make the table easier to understand visually.

TABLE 122: RECOMMENDATIONS RATINGS

Recommendation	Impact rating	Easy rating	Impact x Difficulty
1. Based on the learning test results presented in this report, clearly major interventions are required to raise learning outcomes and literacy and numeracy results amongst learners at all levels of the CSU programme……..	4	3	12
2. Some low or no cost interventions can also significantly improve learning outcomes through simple approaches to developing the learning environment where children attend school……	4	4	16
3. Getting parents on board with home learning tasks such as reading together or providing designated homework space and time each day, involvement in school activities and class visits, and improving parents' overall support and positive attitudes towards their children's education can also have a significant, positive effect on learning outcomes	3	3	9
4. Overall, a collection of key interventions geared at holding learners, parents, teachers and schools accountable within their roles for improving learning and instilling a culture of success and making every day count will be the most successful way that CSU can ensure learning outcomes improve over the course of the programme	3	2	6
5. Although close to 100% of teachers say they change the physical environment and the way they communicate in the classroom to adapt to learners with disabilities' needs, this was not observed in most lesson observations. In addition, only half of teachers make schemes of work and assessments that provide for children with disabilities. More work can be done to help teachers understand what is required to teach CWDs effectively and how to adapt their lessons and tests to accommodate CWDs	2	3	6
6. Teacher and learner attendance and time on task in the classroom should both be monitored during the CSU programme to see if these results improve as daily teacher/learner attendance and classroom engagement has a significant impact on overall learning outcomes	3	4	12
7. Teachers mainly used appropriate disciplinary measures such as gestures, body language and verbal warnings to correct misbehaving learners. Still, 10% of teachers exhibited anger towards a child and 3% used corporal punishment to discipline a child in the presence of an enumerator. CSU should closely monitor the disciplinary methods used in classrooms over the course of the programme to ensure corporal punishment is completely stopped, and hostility is reducing and not increasing	5	5	25

Annex 1: Logframe

Please see attached

CSU GEC-T log frame.xlsx

Annex 2: Outcomes Spreadsheet

Please see spreadsheet attached as separate document.

2. Annex 2_GEC-T Outcomes Spreadsh

Annex 3: Key findings on Output Indicators

TABLE 123: OUTPUT INDICATORS

Logframe Output Indicator	*Means of verification/sources*	*Collection frequency*
Number and Indicator wording	*List all sources used.*	*E.g. monthly, quarterly, annually. NB: For indicators without data collection to date, please indicate when data collection will take place.*
Output 1: 2060 GWDs receiving direct support to contribute to retention in school		
Output 1.1: # of disabled girls (disaggregated by intervention type) receiving direct cost support (tuition, scholastic materials, uniform, transport)	*Fees schedules and receipts obtained from schools, distribution lists and the bus usage registers*	*Monthly, quarterly, annually*
Output 1.2: # of functional rehabilitation completed (# of assessment and reviews, surgeries, assistive devices and therapy)	*Rehabilitation referral letters, invoices from the rehabilitation centres, payment vouchers as well as feedback from the children and the parents.*	*Monthly, quarterly, annually*

Output 2: 20 schools supported to improve accessibility and sanitary facilities, to contribute to retention in school		
Output 2.1: # of schools with accessible, utilised and maintained sanitary facilities for girls	*School monitoring reports, school management reports, feedback from the pupils*	*Quarterly, Annually*
Output 2.2: # of schools with utilised and appropriate accessibility features (e.g. ramps, walkways)	*School monitoring reports, school management reports, feedback from the pupils*	*Quarterly, Annually*
Output 3: Teachers with improved knowledge and capacity to deliver lessons using inclusive teaching practices		
Output 3.1: # of capacity building sessions given (seminars, workshops)	*Capacity building plans and reports, Attendance lists, invoices, also training evaluations and the feedback from trained teachers. Contracts with the service providers*	*Monthly, quarterly, annually.*
Output 3.2: # of teachers who have participated in the capacity building sessions	*Capacity building plans and reports, Attendance lists, invoices, also training evaluations form*	*Monthly, quarterly, annually.*
Output 3.3: # of teacher support supervision conducted by CCTs and other education authorities.	*CCT`s support supervision visits reports and also the feedback from the head teachers and the teachers who have benefited from the support visits.*	*Quarterly*
Output 3.4: # of equipped and functioning resource centres	Procurement plans and reports, Local Purchase Orders, delivery notes, receipts, lists of materials from schools, acknowledgements from schools, inventory of materials at school and project.	Monthly, Quarterly
Output 3.5: # of children (disaggregated by disabled/ non-disabled and gender) with access to project resource centre products (e.g. TLMs) and services (e.g. catch up classes, learning and quiz awards)	User logs, reports, feedback from the pupils and teachers.	Monthly, Quarterly
Output 4: Disabled girls receiving life skills training, career guidance, child protection support and participating in extracurricular activities to contribute to successful transition		

Output 4.1:# disabled girls receiving interventions aimed at increasing confidence and aspirations. life skills sessions (disability rights, personal hygiene, reproductive health, child protection, communication, self-defence) and career guidance	*Attendance lists , training plans, activity reports and feedback from those who participated in the sessions.*	*Quarterly*
Output 4.2: # children engaging in extra-curricular activities (disaggregated by disabled and non-disabled)	*Activity reports, attendance lists and testimonies from the participants*	Quarterly
Output 4.3: # of disabled girls benefiting from learning and mentoring camps	*Camp plans, and reports, attendance lists as well as feedback from the secondary school beneficiaries.*	*Quarterly*
Output 4.4: # of disabled girls supported with child protection interventions	*Activity reports and participants, as well as feedback from the children who have received the interventions.*	*Monthly, Quarterly*
Output 5: Increased family income and increased willingness to support to the education of GWDs		
Output 5.1 # of training sessions delivered on disability, gender and income generation	*Training plans, reports service and payment documents*	*Monthly*
Output 5.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	*Attendance lists and activity reports*	*Quarterly*
Output 5.3 # of group loans provided	Loan applications and disbursement records	*Quarterly*
Output 5.4 # of parents utilising the loans to generate income	Business record, Monitoring reports and loan repayment records	*Quarterly*
Output 5.5 # of IGAs (e.g. SME's) supported by the project loans	Monitoring reports	*Quarterly*
Output 6: Schools, Community, education actors sensitised on gender and inclusive education to promote the education of GWDs		

Output 6.1 # of sensitisation sessions conducted on disability, gender, inclusive education and child protection (split by school level, community level, systems level)	*Sensitisation activity plans, reports, and payment vouchers.*	*Monthly*
Output 6.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	*Attendance lists and activity reports.*	*Monthly*
Output 6.3 # of advocacy, networking and exchange events organised or participated in	*Activity Plans and reports, as well as procurement plans and distribution lists for the IEC materials.*	*Quarterly*
Output 6.4 # of media campaigns conducted	*Copies of radio spots, IEC materials, Service agreements with media houses and reports from the radio stations and recordings of the talk shows from the media houses.*	*Quarterly*

Report on the Baseline values/Baseline status of each Output Indicator in the table below. Reflect on the relevancy of the Output Indicator for your Intermediate Outcomes and Outcomes and the wider Theory of Change based on the data collected so far. Are the indicators measuring the right things? What do the Baseline values/Baseline status mean for the implementation of your activities?

TABLE 124: BASELINE STATUS OF OUTPUT INDICATORS

Logframe Output Indicator	*Baseline status/Baseline values Relevance of the indicator for the project ToC*	*Baseline status/Baseline values*
Number and Indicator wording	*What is the contribution of this indicator for the project ToC, IOs, and Outcomes? What does the Baseline value/status mean for your activities? Is the indicator measuring the right things? Should a revision be considered? Provide short narrative.*	*What is the Baseline value/status of this indicator? Provide short narrative.*
Output 1: 2060 GWDs receiving direct support to contribute to retention in school		
Output 1.1: # of disabled girls (disaggregated by	Girls with disability being direct beneficiaries, direct support enables them to attend school activities and participate	***Target:*** *2060 girls with disabilities and 586 boys with disabilities.*

intervention type) receiving direct cost support (tuition, scholastic materials, uniform, transport)	in the learning process hence being able to learn and transition. The Baseline value/status means that a *follow up on beneficiary girls who have relocated within the country and re-enrolment of the beneficiaries who are pregnant after they have given birth or earlier.*	***Achieved:*** *An overall total of 2011 girls with disabilities representing 97% of the total planned beneficiary girls and 586 boys (100%) received direct support to remain in school and demonstrate learning. The girls that did not receive full direct support during the year are 52 because of different reasons including; 03 death, 37 relocations to unknown places, 01 Somali refugee relocated to Sweden, 06 have given birth and yet to return to school (project in touch with the girls and they will return to school), 01 girl married off by parents and relocated to German (parents have since disappeared for fear of arrest), 04 have lost interest in education after several failure in exams (several efforts have been made to get them back but we are not yet successful).*
Output 1.2: # of functional rehabilitation completed (# of assessment and reviews, surgeries, assistive devices and therapy)	Girls with disability need rehabilitation with assistive devises so as to enhance their functionality and hence participation in the learning process. Rehabilitation enhances the confidence of supported girls and boys to attend school. Rehabilitation is core to the project, the baseline shows that more children who needed rehabilitation were supported.	***Target****: 400 children with disabilities;* ***Achieved****: A total of 615 (424 girls, 191boys) children with disabilities representing 154% were rehabilitated during year 1. The rehabilitation support was inform of: Assessment and Reviews: 329 (226 girls, 103 boys): Assistive Devices: 126 (89 girls, 37 boys): Surgery: 27 (16 girls, 11 boys) and Therapy: 133 (93 girls, 40 boys).* *There is noticeable improvement in confidence among girls and boys with disabilities after rehabilitation. This change has been noticed through the girls' participation in school activities such as politics, curricular activities, learning quiz.*
Output 2: Schools supported to improve accessibility and sanitary facilities, to contribute to retention in school		
Output 2.1: # of schools with accessible, utilised and	Accessible sanitary facilities at school are critical to the attendance of girls and boys with disabilities. In line with the "leave no one behind" and the accessibility	***Target:*** *20 schools had been planned for accessibility improvement.* ***Achieved:*** *10 schools are already accessible, improved under GEC1. For*

maintained sanitary facilities for girls	requirements, the project is working to ensure that schools have accessible sanitary facilities that can be utilised by disabled children.	*GEC-T however, we did accessibility audit, developed tender documents, contracted two companies to undertake work in the four planned schools and shared the tender document with Kampala Capital City Authority for approval. This process took longer than anticipated and therefore no construction work was done during the year*
Output 2.2: # of schools with utilised and appropriate accessibility features (e.g. ramps, walkways)	Accessible facilities at school are critical to the attendance and learning of children with disabilities. This indicator helps the project to monitor the accessibility of schools as an enabler to the attendance and education participation of girls with disabilities.	***Target:*** *20 schools had been planned for accessibility improvement.* ***Achieved:*** *10 schools are already accessible, improved under GEC1. For GEC-T however, we did accessibility audit, developed tender documents, contracted two companies to undertake work in the four planned schools and shared the tender document with Kampala Capital City Authority for approval. This process took longer than anticipated and therefore no construction work was done during the year*
Output 3: Teachers with improved knowledge and capacity to deliver lessons using inclusive teaching practices		
Output 3.1: # of capacity building sessions given (seminars, workshops)	Seminars are delivered on topical inclusive education areas while the workshops are delivered on pedagogical approaches to the delivery of literacy and numeracy. These capacity building programmes for teachers are intended to improve the; attitude of teachers towards disabled children and also make the teaching practices among participating teachers beneficial to disabled learners. We track the sessions that have been accomplished with this indicator.	***Target:*** *100 Seminar and 700 workshops.* ***Achieved:*** *17 seminars on inclusive education were conducted and 100 workshops were achieved.*
Output 3.2: # of teachers who have participated in the capacity building sessions	The project tracks the attendance of teachers by registering those who participate in the capacity building interventions. This attendance tracking helps the project to follow-up on the	***Target:*** *1500 teachers* ***Achieved:*** *1,723 (1153 female and 570 male) teachers. The teachers were drawn from 101 project primary schools. As a result of the trainings, the teacher have improved in the planning for*

	implementation of skills and knowledge from the seminars and workshops.	*learning of children with disabilities, improved classroom environment and majority have a changed attitude towards children with disabilities.*
Output 3.3: # of teacher support supervision conducted by CCTs and other education authorities.	The support supervision visits are critical to the actualisation of the skills and knowledge from the teachers` seminars and workshops. Through these support visits areas of weakness are identified and remedial action(s) proposed for improvement. The baseline status shows a need to carry the remaining 44 teacher support supervision visits ahead to the second year of project implementation.	***Target:*** *700 teacher support visits by CCTs* ***Achieved:*** *56 teacher support visits were achieved. Teachers were 1st undergoing training before support supervisions. The support visit reports by CCTs indicate an improvement in teaching and learning material development and work plans targeting children with disabilities by teachers. A recommendation was that teachers need to continue to improve the setting of their classroom environment and the need for improved supervision by Head Teachers.*
Output 3.4: # of equipped and functioning resource centres	The project is using a resource center approach to improve the quality of teaching. Under this approach, schools are provided teaching and learning materials as well as ICT equipment to boost the teaching and learning in schools. The project has already arranged to start works in schools during the 2nd year of implementation (starting quarter 5). Continuous monitoring of the resource centres usage will show the functionality extent of the centres.	***Target:*** *20 resource centres were planned to be equipped.* ***Achievement****: 10 provided under GEC-1. For GEC-T, resource centre tendering document was developed and share with Kampala Capital City Authority for approval. Contractors were recruited to carry out the construction works for the resource centre rooms in the four schools. However, there was delay in approval of the structures from Kampala Capital City Authority and therefore no actual construction work took place during the year*
Output 3.5: # of children (disaggregated by disabled/ non-disabled and gender) with access to project resource centre products (e.g. TLMs) and services (e.g. catch up classes, learning and quiz awards)	Teachers are expected to blend their teaching with the use of ICT equipment in the resource centres. Also, the pupils need to access the resource centres and use the facilities in the course of the teaching and learning process. The over 100% baseline status is for the resource centres that were established under GEC1 which indicates high demand for the facilities. For GEC-T, the project has arranged to start works in schools starting quarter 5. The beneficiaries in these	***Target:*** *1680 children (280 children with disabilities and 1400 non-disabled children).* ***Achievement:*** *3528 (608 disabled children: 247 girls, 361boys and 2714 non-disabled: 1165 girls, 1549 boys and 206 teachers (122 female,84 male) who accessed and used the resource centre facilities provided under GEC1.*

	schools will also start utilising the services in quarter 6.	
Output 4: Disabled girls receiving life skills training, career guidance, child protection support and participating in extracurricular activities to contribute to successful transition		
Output 4.1:# disabled girls receiving interventions aimed at increasing confidence and aspirations. life skills sessions (disability rights, personal hygiene, reproductive health, child protection, communication, self-defence) and career guidance	For girls to remain committed to education, the project needs provide them with interventions aimed at increasing confidence and education/career aspirations right from primary school level. Such interventions include; life skills sessions and career guidance. Through this indicator 4.1, we would be able to track the participation of girls in esteem building activities.	***Target:*** *2060 girls with disabilities and 586 boys with disabilities.* ***Achieved:*** *A total of 1295 (899 GWDs, 390 BWDs).*
Output 4.2: # children engaging in extra-curricular activities (disaggregated by disabled and non-disabled)	The esteem for girls and boys with disabilities is rooted in their participation not only in the classroom but also outside the class during extra-curricular activities. The extra-curricular activities are inclusive for both disabled and non-disabled; therefore, through the indicator 4.2, the project tracks the participation of supported disabled children.	***Target:*** *2060 girls with disabilities and 586 boys with disabilities.* ***Achieved:*** *434 (280 GWDs and 154 BWDs) representing 145% were supported to participate in extracurricular activities from 12 project schools. In addition, a total of 1284 (825 girls 459 boys) non-disabled children participated in extracurricular activities organised by the project. Participation in extracurricular activities by project beneficiaries has improved their confidence and co-existence with their peers in schools.*
Output 4.3: # of disabled girls benefiting from learning and mentoring camps	Planned for girls with disabilities in secondary schools, these camps that are run during holidays are geared towards girls empowerment to build their confidence and education aspirations.	***Target:*** *1400 children with disabilities.* ***Achieved:*** *141 girls with disabilities benefited from learning and mentoring camps. In addition a total of 19 boys with disabilities benefited from the learning and mentoring camps. Failure to complete these sessions was because they only happen is holidays, we have to wait for a holiday to complete/conduct any camp activities.*
Output 4.4: # of disabled girls	Girls with disabilities need knowledge on their rights so that they can be able to	***Target:*** *500 children with disabilities.*

supported with child protection interventions	defend them and demand for them duty bearers. This knowledge on child protection is meant to boost their self efficacy, and aspirations.	***Achieved:*** *320 girls with disabilities and 90BWDs were supported with child protection awareness and skills on how to respond and defend their rights.*
Output 5: Increased family income and increased willingness to support to the education of GWDs		
Output 5.1 # of training sessions delivered on disability, gender and income generation	The negative attitude of parents/caregivers in many cases results from disability ignorance and poverty. These training sessions empower parents with knowledge and skills on disability management, the need for girl child education and income generation. Different sessions are delivered on each of these aspects.	***Target:*** *168 sessions on disability (168) and income generation (896).* ***Achieved:*** *174 sessions on disability (48) and income generation (126) were achieved. These trainings have resulted into improved attitude among parents towards their children with disabilities. This has been witnessed through parents' participation of project activities, engaging in activities that promote the rights of their children such community advocacy on the rights of persons with disabilities among other.* *Parents have also been equipped with skills to start income generating activities to better their live and those of their children with disabilities. Although the parents have not yet received any loans from the project, they are already engaged in some small businesses such as value addition to coffee and ground nuts, food kiosks, retail shops, saloon, poultry soft drinks, piggery*
Output 5.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	The project registers parents/caregivers who take part in the training sessions. This indicator 5.2 tracks parents` attendance for the training sessions.	***Target:*** *Average attendance of 75% was planned.* ***Achieved:*** *An average attendance rate of 76% (1203) over the planned average 75% (1584) was achieved during the year. Disability management and gender trainings registered an average attendance rate of 76% while IGA training had a slightly higher rate of 77%. This implies interest*
Output 5.3 # of group loans provided	The parents have been organised into groups and receive training sessions on IGAs in their respective groups. The plan is to provide the group loans.	***Target****: 112* ***Achieved:*** *This indicator was not planned for year 1. The loans will be disbursed in 2nd year of the project.*

Output 5.4 # of parents utilising the loans to generate income	The group loans are eventually expected to trickle down to the members who then will use the loans to generate addition income.	***Target**: 1764* ***Achieved:** This indicator was not planned for year 1. The loans will be disbursed in 2nd year of the project.*
Output 5.5 # of IGAs (e.g. SME's) supported by the project loans	Using group loans, income generating activities (Small and Medium Scale Enterprises) are expected to be established.	***Target**: 112* ***Achieved:** This indicator was not planned for year 1. The loans will be disbursed in 2nd year of the project.*
Output 6: Schools, Community, education actors sensitised on gender and inclusive education to promote the education of GWDs		
Output 6.1 # of sensitisation sessions conducted on disability, gender, inclusive education and child protection (split by school level, community level, systems level)	Interventions to change the stakeholders attitude towards disability have been designed at three levels; school, community and system. We track sessions at each of the levels with this indicator. The baseline status shows the project will need to engage system level stakeholders to influence the implementation of disability related laws and policies.	***Target:** 300 sensitisation sessions at school, community (154) and System level (28).* ***Achieved:** 90 sensitisation sessions at school (42), community (22) and system (2) representing 97% of the planned target were achieved. Sensitisation have improved response to children's issues for example at community level, leaders report cases of child abuse to the police and to our offices.*
Output 6.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	The project registers stakeholders who participate in the sensitisation engagements at school, community and system levels. This attendance is tracked under this indicator.	***Target:** Average attendance of 75% for stakeholders.* ***Achieved:** The attendance rate was 82%: school, 73%: Community and 55% for system which gives us an average attendance rate of 70% was recorded slightly less the planned average attendance rate of 75%. This attendance rate demonstrates increasing interest to participate in project activities by stakeholders at different levels.*
Output 6.3 # of advocacy, networking and exchange events organised or participated in	Advocacy, networking and memberships are used for influencing attitude change among stakeholders however; exchange visits are used for cross learning.	***Target:** 25 public events, 28 networking meetings, 21000 brochures and 28 exchange visits.* ***Achieved:** 5 public events participated in (100%), 15 networking engagements representing 375% and 3000 IEC materials representing 100% were produced (2000 brochures and 1000 newsletters).*

Output 6.4 # of media campaigns conducted	Media is used to share information on disability and what works for the education of girls and boys with disabilities.	***Target:*** *28 radio campaigns and 12 newspaper supplements.* ***Achieved:*** *7 media campaign including: 5 radio spots, 1 radio talk show and 1 TV show representing 175% were conducted during the year. The campaigns mainly aimed at disseminating project information to the public.*

List all issues with the means of verification/sources or the frequency of data collection which require changes or additions.

TABLE 125: OUTPUT INDICATOR ISSUES

Logframe Output Indicator	Issues with the means of verification/sources and the collection frequency, or the indicator in general?	Changes/additions
Number and Indicator wording	E.g. inappropriate wording, irrelevant sources, or wrong assumptions etc. Was data collection too frequent or too far between? Or no issues?	E.g. change wording, add or remove sources, increase/decrease frequency of data collection; or leave as is.
Output 1: 2060 GWDs receiving direct support to contribute to retention in school		
Output 1.1: # of disabled girls (disaggregated by intervention type) receiving direct cost support (tuition, scholastic materials, uniform, transport)	No issues	Leave as is.
Output 1.2: # of functional rehabilitation completed (# of assessment and reviews, surgeries, assistive devices and therapy)	The indicator wording, the word “completed” because rehabilitation is continuous.	Change wording to # of disabled girls receiving rehabilitation.
Output 1.3: # disabled girls receiving direct child protection support activities	This indicator is same as Output 4.4 thus, repeated.	Drop the indicator.

Output 2: 20 schools supported to improve accessibility and sanitary facilities, to contribute to retention in school		
Output 2.1: # of schools with accessible, utilised and maintained sanitary facilities for girls	No issue	Leave as is.
Output 2.2: # of schools with utilised and appropriate accessibility features (e.g. ramps, walkways)	No issue	Leave as is.
Output 3: Teachers with improved knowledge and capacity to deliver lessons using inclusive teaching practices		
Output 3.1: # of capacity building sessions given (seminars, workshops)	No issues	Leave as is
Output 3.2: # of teachers who have participated in the capacity building sessions	No issues	Leave as is
Output 3.3: # of teacher support supervision conducted by CCTs and other education authorities.	No issues	Leave as is
Output 3.4: # of equipped and functioning resource centres	No issues	Leave as is
Output 3.5: # of children (disaggregated by disabled/ non-disabled and gender) with access to project resource centre products (e.g. TLMs) and services (e.g. catch up classes,	No issues	Leave as is

learning and quiz awards)		
Output 4: Disabled girls receiving life skills training, career guidance, child protection support and participating in extracurricular activities to contribute to successful transition		
Output 4.1:# disabled girls receiving interventions aimed at increasing confidence and aspirations. life skills sessions (disability rights, personal hygiene, reproductive health, child protection, communication, self-defence) and career guidance	No issues	Leave as is
Output 4.2: # children engaging in extra-curricular activities (disaggregated by disabled and non-disabled)	No issues	Leave as is
Output 4.3: # of disabled girls benefiting from learning and mentoring camps	No issues	Leave as is
Output 4.4: # of disabled girls supported with child protection interventions	No issues	Leave as is
Output 5: Increased family income and increased willingness to support to the education of GWDs		
Output 5.1 # of training sessions delivered on disability, gender and income generation	No issues	Leave as is
Output 5.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	No issues	Leave as is

Output 5.3 # of group loans provided	No issues	Leave as is
Output 5.4 # of parents utilising the loans to generate income	No issues	Leave as is
Output 5.5 # of IGAs (e.g. SME's) supported by the project loans	No issues	Leave as is
Output 6: Schools, Community, education actors sensitised on gender and inclusive education to promote the education of GWDs		
Output 6.1 # of sensitisation sessions conducted on disability, gender, inclusive education and child protection (split by school level, community level, systems level)	No issues	Leave as is
Output 6.2 Average attendance rate (# stakeholders expected over # stakeholders attended)	No issues	Leave as is
Output 6.3 # of advocacy, networking and exchange events organised or participated in	No issues	Leave as is
Output 6.4 # of media campaigns conducted	No issues	Leave as is

Annex 4: Beneficiary tables

This annex should be completed by the project.

Table 126: Direct beneficiaries

Beneficiary type	***Total project number***	***Total number of girls targeted for learning outcomes that the project has reached by Endline***	***Comments***
Direct learning beneficiaries (girls) – girls in the intervention group who are specifically expected to achieve learning outcomes in line with targets. If relevant, please disaggregate girls with disabilities in this overall number.	***[This should align with the total beneficiary numbers reported in the outcomes spreadsheet]***	***[This may equal the total project number in the outcomes spreadsheet and in the column to the left, or may be less if you have a staggered approach]***	***[Projects should provide additional information on who they are and the methodology used. If the numbers have changed since Baseline, an explanation should be provided]***
Difficulty Seeing	977		
Difficulty Hearing	276		
Difficulty walking or climbing stairs	242		
Difficulty remembering or concentrating	366		
Difficulty with (self-care	122		
Difficulty communicating	77		
Total	2060*		

*At the time of MEL framework development, we had a beneficiary population of 2060 girls with disabilities however, 3 girls have since then unfortunately died! This explains the reduction in the number.

Table 127: Other beneficiaries

Beneficiary type	Number	Comments
Learning beneficiaries (boys) – as above, but specifically counting boys who will get the same exposure and	586	These boys receive direct support to enable them attend school and learn.

therefore be expected to also achieve learning gains, if applicable.		
Broader student beneficiaries (boys) – boys who will benefit from the interventions in a less direct way, and therefore may benefit from aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.	34506	
Broader student beneficiaries (girls) – girls who will benefit from the interventions in a less direct way, and therefore may benefit from aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.	39391	
Teacher beneficiaries – Male number of teachers who benefit from training or related interventions. If possible /applicable, please disaggregate by gender and type of training, with the comments box used to describe the type of training provided.	955	This number covers only male teachers in primary schools. It is not inclusive of secondary schools and Vocational institutions.
Teacher beneficiaries – Female number of teachers who benefit from training or related interventions. If possible /applicable, please disaggregate by gender and type of training, with the comments box used to describe the type of training provided.	1406	This number covers only female teachers in primary schools. It is not inclusive of secondary schools and Vocational institutions.
Broader community beneficiaries (Male adults) – adults who benefit from broader interventions, such as community messaging /dialogues, community advocacy, economic empowerment interventions, etc.	252,394	This is an estimated number of the broader male community beneficiaries.
Broader community beneficiaries (Female adults) – adults who benefit from broader interventions, such as community messaging /dialogues, community advocacy, economic empowerment interventions, etc.	300,678	This is an estimated number of the broader female community beneficiaries.

- Table 128 to Table 130 provide different ways of defining and identifying the project's target groups. They each refer to the same total number of girls but use different definitions and categories. These are girls who can be counted and have regular involvement with project activities.
- The total number of sampled girls in the last row of Table 128 to Table 130 should be the same – these are just different ways of identifying and describing the girls included in the sample.

Table 128: Target groups - by school

School Age	Project definition of target group (Tick where appropriate)	Number targeted through project interventions Girls	Sample size of target group at Baseline
Lower primary	√	328	64
Upper primary	√	1204	180
Lower secondary	√	479	32
Upper secondary			
Vocational	√	49	0
Total:		2060	276

Table 129: Target groups - by age

Age Groups	**Project definition of target group (Tick where appropriate)**	**Number targeted through project interventions (Girls)**	**Sample size of target group at Baseline**
Aged 6-8 (% aged 6-8)	√	88	11
Aged 9-11 (% aged 9-11)	√	458	83
Aged 12-13 (% aged 12-13)	√	557	90
Aged 14-15 (% aged 14-15)	√	511	73
Aged 16-17 (%aged 16-17)	√	286	13
Aged 18-19 (%aged 18-19)	√√√	116	5
Aged 20+ (% aged 20 and over)	√	44	1
Total:		2060	276

Table 130: Target groups - by sub group

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions (Girls)	Sample size of target group at Baseline
Difficulty Seeing	√	977	51
Difficulty Hearing	√	276	105
Difficulty walking or climbing stairs	√	242	47
Difficulty remembering or concentrating	√	366	52
Difficulty with (self-care	√	122	10
Difficulty communicating	√	77	4
Multiple	√		7
Total		2060	276
Orphaned girls	√	91	
Pastoralist girls			
Child labourers			
Poor girls			
Orphans			
Girls affected by a long-term illness (HIV, sickle cells	√	20	
Homeless girls	√	100	
Total:			[This number should be the same across Tables 3, 4, 5 & 6]

Table 131: Target groups - by school status

Educational sub-groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Baseline
Out-of-school girls: have never attended school			
Out-of-school girls: have attended school, but dropped out			
Girls in-school	√	**2060**	**276**
Total:			[This number should be the same across Tables 3, 4, 5 & 6]

Annex 5: MEL Framework

Please find attached

Annex 6: External Evaluator's Inception Report (where applicable)

Please find attached separately.

Annex 7: Data collection tools used for Baseline

Please find attached separately.

Annex 8: Datasets, codebooks and programs

Please find in separate attachment

Annex 9: Learning test pilot and calibration

Please see section 3 of the pilot report attached

Annex 10: Sampling Framework

Please find attached

10. Annex 10_
Baseline sampling frar

Annex 11: Control group approach validation

See section 2.4 of this report for more details.

Annex 12: External Evaluator declaration

Name of Project: CSU GEC-T

Name of External Evaluator: Montrose

Contact Information for External Evaluator: +256 772 765 686 Charlotte Walker, Director Programmes

Names of all members of the evaluation team:

___ **Charlotte Walker**___ (Name) certify that the independent evaluation has been conducted in line with the Terms of Reference and other requirements received.

Specifically:

- All of the quantitative data was collected independently ((Initials: __CW__)
- All data analysis was conducted independently and provides a fair and consistent representation of progress (Initials: _CW___)
- Data quality assurance and verification mechanisms agreed in the terms of reference with the project have been soundly followed (Initials: __CW__)
- The recipient has not fundamentally altered or misrepresented the nature of the analysis originally provided by ___CW___(Company) (Initials: _CW___)
- All child protection protocols and guidance have been followed ((initials: _CW___)
- Data has been anonymised, treated confidentially and stored safely, in line with the GEC data protection and ethics protocols (Initials: __CW__)

Charlotte Walker

_____

(Name)

Montrose

_____

(Company)

_____04/06/2018_____

(Date)

Annex 13: Project Management Response

This annex should be completed by the project.

This annex gives the project the chance to prepare a short and concise management response to the evaluation report before the report is published.

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

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

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

Regarding learning outcomes, we realise that the intervention girls with disabilities, as expected, have low learning outcomes compared to the control girls with no disability. As explained in the MEL framework, the CSU GECT project is designed to reduce the learning outcomes gap between the 2 groups over the project period. The External Evaluator will subsequently need to relate learning outcomes to the IOs so that we can be able to associate in the outputs, intermediate outcomes, and outcomes and the significance of barriers for certain groups of children with disabilities. This cross tabulation of outcomes and intermediate outcomes will help to shade light on any existing relationships, as well as, the significance of these relationships.

In terms of transition, the findings are not conclusive. For example, in the log frame, no transition rate is calculated on transition. Additionally, while the project record show that all girls currently in secondary one were in primary grade seven and thus, successfully transitioned, the evaluation findings show that they were repeating the grade. Also, the consultant will at subsequent evaluation points need to crosstab self-esteem and economic empowerment intermediate outcomes with transition. That said, the project will is committed to improving the transition levels of supported children with disabilities across grades and levels.

On sustainability, the findings show that the CSU GECT project is largely at latent across the 3 levels; school, community and system. Going forward, will implement the programme in a more focused way in line with the sustainability scale and we are optimistic that a positive change will be realised.

The evaluation did not focus on gender and therefore not major findings on the same have been document. However, the project has been designed to address gender-related barriers that may limit the education participation of girls such as menstruation management and also sensitisation of families to appreciate the need for education of girls more so, girls with disabilities.

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

- The management response should respond to the each of the External Evaluator's recommendations that are relevant to the grantee organisation (see Section 6). The response should make clear what changes and adaptations to implementation will be proposed as a result of

the recommendations and which ones are not considered appropriate, providing a clear explanation why.

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

SN	Recommendation	Management Recommendation
1	Based on the learning test results presented in this report, clearly major interventions are required to raise learning outcomes and literacy and numeracy results amongst learners at all levels of the CSU programme. However, improving instruction and pedagogical practices amongst teachers in literacy and numeracy requires a highly technical and intensive intervention that demands a large degree of expertise and focus. CSU should reflect on its approaches to this and identify what support it can effectively give teachers to help them improve their instructional capacities within the framework of the programme. Actions include; o CSU should contract a specialist teacher training organisation to work intensively with the teachers to improve their instructional capacity and pedagogical practises o Through this contracted teacher training organisation CSU should train headteachers on teaching quality and inclusive education. They should establish a monitoring mechanism/checklist for headteachers to ensure those teachers who are trained are continuing to implement the practises they have been taught o To increase sustainability CSU should work with the MoES school inspectors to support them with training on lesson observations with respect to inclusive education and good pedagogical practises	CSU will conduct a teacher delivery gap study to deeply understand the reasons why teachers do not teach literacy and numeracy inclusively. This school based needs analysis will inform subsequent capacity building of teachers and head teachers. However for whatever intervention aimed at improving teachers` performance, this should be done within the established structures. For example, engaging existing teacher trainers such as CCTs, Tutors in training colleges, government inspectorate of education will bring more sustainable outcomes than depending on a profit-making teacher training organisation.
2	Some low or no cost interventions can also significantly improve learning outcomes through simple approaches to developing the learning environment where children attend school. For example, ensuring that the attendance of learners and teachers improves is a simple – and effective – way to provide more time for learning to happen. Focusing on improving teacher time on task in the classroom, including things like effective learning strategies, use of appropriate resources, grouping strategies and student-centred learning techniques can help to improve the learning environment so that children are challenged to guide their own learning process and	

	engage in self-directed tasks that develop their critical and creative thinking skills, as well as core literacy and numeracy knowledge. Actions include: ○ Provide teachers with model lesson plans which include effective learning strategies such as child-centred techniques and use of appropriate resources for all children including CWD ○ Monitor teachers own lesson plans each week to ensure they have provided for CWD and other marginalised groups and that they are actively employing the appropriate teaching and learning strategies Provide teachers with adapted materials for CWD and other essential classroom materials to facilitate learning in a creative way to develop children's critical thinking skills	
3	Getting parents on board with home learning tasks such as reading together or providing designated homework space and time each day, involvement in school activities and class visits, and improving parents' overall support and positive attitudes towards their children's education can also have a significant, positive effect on learning outcomes. Actions include: ○ Support the Parents and Teachers Associations (PTAs) to ensure they are more effective through developing governance documents, ensuring the head teacher is accountable to the PTA ○ Hold meetings with parents to stress the importance of learning at home with their children Each child should be sent home with reading and maths to do with their parents in the evenings	CSU will strengthen engagement with the School Management Committees and Parents and Teachers Associations (PTAs) by doing refresher trainings on their roles and responsibilities for the PTA leadership. During engagement with PTAs, we will put emphasis on teachers giving reading and maths assignments to children as well as parents supporting the children at home to do them. The project will engage with parents of the supported children through Parents support group meetings and family visits to further stress the importance of learning at home, and supporting the reading and maths of the children.
4	Overall, a collection of key interventions geared at holding learners, parents, teachers and schools accountable within their roles for improving learning and instilling a culture of success and making every day count will be the most successful way that CSU can ensure learning outcomes improve over the course of the programme.	
5	Although close to 100% of teachers say they change the physical environment and the way they communicate in the classroom to adapt to learners with disabilities' needs, this was not observed in most lesson observations. In addition,	We have a Teacher Training Manual on Special Needs and Inclusive Education developed under GEC1. Also, we are also following the

	only half of teachers make schemes of work and assessments that provide for children with disabilities. More work can be done to help teachers understand what is required to teach CWDs effectively and how to adapt their lessons and tests to accommodate CWDs. Action needed: ○ CSU does not have an Inclusive Education manual for either training of teachers or guiding teachers once they have been trained to support the implementation of the IE learning they received. CSU should develop both of these document, print them and disseminate to all teachers supported through this programme ○ CSU should ensure their Project Officers who visit each child each week spend time in the classrooms working with the co-teachers to ensure they focus their time supporting those children who have learning difficulties, so they get the 1-2-1 support they require.	Leonard Cheshire Inclusive Education Technical Information and Guidance being used in partnership projects in other parts of Uganda to deliver training. In addition, we are working with Kyambogo University `s Special Needs Faculty to deliver the inclusive education trainings to teachers. The project is further benefiting from the Early Grade Reading and Maths Framework developed by MoES. At the end of each training, we do give the training modules/notes to the schools for future reference. We will look at the documents and consolidate into one document to guide our future teacher trainings, print and disseminate to schools/teachers supported through this programme. The Project Officers don't have the mandate to observe the teaching and learning in schools. CSU will intensify monitoring of the teaching quality by engaging the education authorities of KCCA in addition to the CCTs doing supportive supervision.
6	Teacher and learner attendance and time on task in the classroom should both be monitored during the CSU programme to see if these results improve as daily teacher/learner attendance and classroom engagement has a significant impact on overall learning outcomes. Actions include: ○ Attendance of teachers and learners should be closely monitored by CSU ○ Any teachers found to be off work regularly or for extended periods without the necessary documentation to support their absence should be reported to the head teacher, PTA, KCCA and MoES ○ Any learners who are found to be off school regularly or for extended period should be followed up by CSU Project Officers. CSU Project Officers should complete a classroom observation checklist every time they visit the school which is at least once a week. The outcomes of this should be	The CSU GECT project will intensify monitoring of learners through attendance spot checks, and review of school registers. Children found absent will be followed up by CSU project staff to establish reasons for non-attendance and also support their attendance. As a project, we have limited mandate on teachers monitoring however, we will work with education authorities to monitor teachers` attendance. Any information of teachers being off school for an extended time will be escalated to the head teachers, PTA and KCCA. As indicated under the response to recommendation 5, the project officers do not have the mandate to do classroom observations; therefore,

	discussed with the teacher, headteacher and CSU to monitor changes over time with respect to the use of IE and good learning strategies	we will refine the teachers` observation checklist used by education authorities to do supportive supervision. The emerging issues will be discussed with the teacher and headteachers for action with respect to the use of IE and good learning strategies.
7	Teachers mainly used appropriate disciplinary measures such as gestures, body language and verbal warnings to correct misbehaving learners. Still, 10% of teachers exhibited anger towards a child and 3% used corporal punishment to discipline a child in the presence of an enumerator. CSU should closely monitor the disciplinary methods used in classrooms over the course of the programme to ensure corporal punishment is completely stopped, and hostility is reducing and not increasing. Less than half of teachers were observed differentiating their lessons for learners with various disabilities. Further teacher training and support is necessary to help teachers find ways to accommodate learners of all abilities in their lessons. Actions include: ○ CSU should take a firmer stance on corporal punishment and should report any cases arising in the schools they support to the police immediately ○ CSU should then follow up on these cases to ensure those teachers are no permitted to resume work after the offense ○ All instances of child abuse should be documented and presented to MoES and KCCA	The CSU GEC-T project will relentless engage with teachers and school administrations to understand disability and the different learning needs of children with disabilities. Additionally, the engagement will make the teachers and head teachers to further discourage corporal punishment and also appreciate alternative positive discipline approaches through child protection orientation. As part of our monitoring, we will keep track of the disciplinary methods used in classrooms over the course of the project. These will be disseminated to stakeholders at different levels for consideration. Cases of abuse will be reported to government through the National Child Protection help line.

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

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

There are indicators at outcome and intermediate outcomes where the external evaluator did not collect data for example, the transition outcome indicator, part of IO2,part of IO2.3, part of IO 3.4, part of IO 4.4, part of IO 5.1, 5.2, and part of IO 5.3. We are proposing to maintain those indicators and would want to track them at the subsequent evaluation points. At output level, we are proposing to drop one indicator 1.3 since it is largely same as 4.4 and thus repeated.

montrose

Improving Learning Outcomes and Life Chances for Girls with Disabilities in Kampala, Uganda

Programme Evaluation Inception Report

Part of DFID Girl's Education Challenge

February 2018

CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

Education is widely recognized as critical to the overall development of a country. Literacy, in particular, is the foundation for an informed, skilled citizenry. The development of literacy is critical for children's lifetime academic success, and is an intrinsically important educational goal in its own right. In addition to the fundamental value of wider access to educational opportunities, education is also instrumentally valuable in advancing the economic and social development of a country. Moreover, early learning, and especially early language acquisition, is of particular importance: it helps determine a child's trajectory, both in terms of future school attendance as well as cognitive and social development. Advancing literacy and mother tongue education is therefore one of the main goals of the Government of Uganda, other local and international development organizations, and more broadly development partners and government ministries.

1.1 Context: Education for GWD in Uganda

1.1.1 Education in Uganda

The formal Education system in Uganda comprises 3 years of pre-primary education, 7 years of primary, 6 years of secondary school and 3 to 5 years of post-secondary education in a tertiary or vocational institution[1]. Primary education is considered to be the first official level of education by most Ugandans. Through the Ministry of Education (MoE), the GOU aims to *"to provide for, support, guide, coordinate, regulate and promote quality education and sports to all persons in Uganda for national integration, individual and national development"*.[2] Such commitments are emulated in the Education Sector Strategic Plan (ESSP) 2017/18 - 2019/20 , whose specific objective to achieve equitable access to education and training includes interventions aimed at improving the participation of disadvantaged persons including girls and Persons with Disabilities (PwD) at all levels of education. Other initiatives include the Special needs department of the MoE and the Faculty of Special Needs and Rehabilitation (Kyambogo University) established to train special needs education teachers.

Internationally and to promote inclusivity, Uganda has committed to the Sustainable Development Goals (SDG) where she is obligated to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all''[3] irrespective of cultural, gender, regional, physical or social differences. Additionally, the GoU has ratified the United-Nations Convention on the Rights of the Child (CRC) [4] and the United-Nations Convention on the Rights of Persons with Disabilities (CRPD)[5] which both address the specific measures needed to protect the rights, one of which is the right to education, of PwD including CwD.

[1] https://www.slideshare.net/ojijop/review-of-education-policy-in-uganda
[2] Ministry of Education and Sports Mission.
http://www.education.go.ug/data/smenu/1/Mission%20and%20Objectives%20.html
[3] Sustainable Development Goal 4
[4] The CRC rights are grouped together under the three themes: Survival, protection and development rights. The Development rights (Articles 28 and 29) include the right to education, health, play, leisure, cultural activities, access to information, and freedom of thought, conscience and religion.
[5] Ratified in 2008, the CPWD's process of implementation is a co-operative process that involves the States of the world. With regard to some rights, such as protection from violence, access to education, access to justice, access to health, and collection of data and statistics, it outlines in more detail than the CRC what needs to be done by governments.

To improve the quality of education in schools, a number of Quality Enhancement Initiatives (QEIs) which included the construction of classrooms, libraries and laboratories in many schools have been implemented. A review of the Primary School and Primary Teacher Colleges' curricula was done to make them more relevant to the country's needs in addition to the introduction of the use of local language as the Language of Instruction (LoI) in lower primary schools (Primary 1 to 3)[6]. The curriculum review showed that lack of learning among primary school going children was due to a disparity between the current primary curriculum and the amount of appropriate teacher training[7].

The MoES 2003/4 Curriculum Review found that children were not learning to read due to a gap within the current primary curriculum in the area of foundational literacy skills and the lack of appropriate teacher training. Nonetheless, close to 98% of Children with Disabilities (CwD) in middle and low-income earning countries do not go to school while 98% of girls with disabilities are illiterate[8]. A 2017 report from UNICEF stated that close to 2.5 million CwD attended government schools and only 5% of those has access to specialised education[9].

1.1.2 Factors effecting learning outcomes

Learning outcomes in Ugandan primary schools are poor. The low quality of educational foundations established in the early primary grades has consequences throughout the education system and far-reaching implications for society and the economy. In 2012, less than half the primary Grade 6 students tested by National Assessment of Progress in Education (NAPE) were proficient in literacy (41%).[10] In cross-country assessments the Southern and Eastern Africa consortium for monitoring educational quality (SACMEQ), Ugandan students scored in the lowest one-third of countries. Very few children are reading to an international benchmark.[11] According to the UWEZO[12] survey, only one out of 10 children assessed in primary 3 were able to read and comprehend a Primary 2 level story and correctly solve primary 2 level arithmetical division. Only seven out of 10 children assessed in primary 7 succeeded in the same primary 2 level tests. There are marked differences in the learning outcomes recorded in different districts. The following have been identified as some of the factors affecting learning outcomes in Uganda:

- Poor achievement levels that lead to rapid fall-off in enrolments in upper primary. This is particularly pronounced between grades 6 and 7, when children are preparing for the Primary Leaving Examination (PLE). The low survival rate and poor learning outcomes mean that an expanding population of children and young people is emerging from the school system with low levels of education and skills. A large proportion of Ugandan children are missing out on the economic and social benefits and individual well-being derived from education[13].
- Income poverty is strongly associated with a lack of education and issues of gender inequality can be exacerbated or ameliorated by the provision of education.[14] High economic and social

[6] file:///C:/Users/rebec/Documents/Rebecca%20transfer%20to%20laptop%20documents/Uganda%20Inclusion/Inception%20report/Education%20in%20Uganda%20background/Uganda-Factsheet-July-2017.pdf
[7] Ministry of Education and Sports of Uganda 2003/4 curriculum review report.
[8] United Nations Educational, Scientific and Cultural Organisation (UNESCO), Policy Brief on Early Childhood, Inclusion of Children with Disabilities: The Early Childhood Imperative, N° 46, April-June 2009. and United Nations Educational, Scientific and Cultural Organisation (UNESCO), From Exclusion to Equality: Realising the rights of persons with disabilities – Handbook for Parliamentarians on the Convention on the Rights of Persons with Disabilities and its Optional Protocol, United Nations, Geneva, 2007.
[9] https://www.unicef.org/uganda/UNICEF_Uganda_AR_2015_final_v6.pdf. Page 5
[10] World Bank (2013). Project Appraisal Document for the Uganda Teacher and School Effectiveness Project.
[11] Piper, B. 2010. *Uganda Early Grade Reading Assessment – Findings Report: Literacy Acquisition and Mother Tongue*. Research Triangle Institute International.
[12] Annual Learning Assessment Report, 2014.
[13] Education and Economic Growth, International Encyclopaedia of Education Hanushek and Wossmann, 2010.
[14] Lloyd C. B. (2011) Evidence Paper for Girls' Education Challenge Fund, Consultancy Report to DFID.

returns to early years education are widely recognised. Global evidence shows that an extra year of primary schooling for girls in particular can increase their wages by up to 20%, most of which is likely to be reinvested in her family and community.[15]

- Low teacher quality is also a contributing factor to poor learning outcomes.[16] Teachers enter the profession with limited subject knowledge and few pedagogic skills and they have few opportunities to develop thereafter. Typically, teachers get little professional support from head teachers who lack leadership skills, have limited career prospects and are not motivated resulting in high rates of absenteeism. UWEZO reported 21% of teachers were absent from school on the day of its 2014 survey.[17]

- For CwD, inaccessibility to buildings and toilets is a main factor that causes dropouts form school. between 2009 and 2011, 94% of CwD dropped out of school between the primary and secondary levels[18].

- Additionally, the type of impairment in itself is a major factor that affects the learning outcomes of CwD. Different impairments pose different transition barriers broadly due to infrastructural barriers, inaccessible curriculum, and attitudinal barriers. A UNICEF situational analysis report 2014, purported that children with sensory disabilities (e.g. visually- and hearing-impaired children) were more likely to access schools and complete primary level compared to children with mental, cognitive (e.g. autism) and multiple disabilities[19].

Girls with Disabilities (GwD) face double marginalisation as a result of gender related stereotype as well as the negativity arising from having an impairment. Coupled with poverty among households of girls with disabilities, these two factors greatly contribute to the marginalization of girls with disabilities in Uganda, which in turn can negatively impact their learning. Generally, children with disabilities transitioning to post-primary institutions experience attitudinal, gender and age related (especially adolescent girls) challenges resulting into bullying, teasing and harassment from the school community (peers and staff).

In response to these challenges, Uganda's (MoE) has committed itself to a national programme of early grade reading and is keen to extend the coverage of its current reading projects. However, due to the multifaceted challenges to teaching children literacy skills in the Ugandan setting, it is unlikely that one intervention on its own will remove all of the barriers to providing quality education.

1.1.3 Assessment of early grade literacy & numeracy (EGRA/EGMA)

To assess learning outcomes of the project beneficiaries in primary school, the Early Grade Reading and Mathematics Assessments (EGRA/EGMA) tools were preselected. Learning outcomes at secondary level were pre-determined to be measured using the GEC-T Secondary Grade Reading and Mathematics Assessments (SEGRA/SEGMA) whose framework was specifically designed for this project.

[15] Psacharopoulos and Patrinos (2004), Returns to investment in education: a further update, *Education Economics* 12(2).
[16] According to DFID Education Evidence Paper 2014, teacher quality has the greatest impact on learning outcomes.
[17] In over half the public schools in the country over 60% of teachers were not in the classroom teaching. World Bank Social Delivery Indicators Report, 2013.
[18] Dolorence Naswa Were, Uganda Society for Disabled Children (USDC), interviewed by Nadège Riche, 2013. UNICEF CwDs Situational analysis report, Page 31.
[19] Situational Analysis on the rights of children with disabilities in Uganda (Ministry of Gender, Labour and Social Development and UNICEF Uganda), 2014

The EGRA and EGMA were designed to assess areas of skills deficiency in early grade mathematics and literacy. EGRA was developed to help educators in low income countries evaluate student's foundation literacy skills that included pre-reading skills such as phonemic awareness, listening comprehension and letter naming. Similarly, EGMA, piloted in Kenya in 2009, was designed to assess foundation mathematics. Some of the EGMA test components (subtasks) include number identification, quantity discrimination, word problems, shape recognition, addition/subtraction problems and pattern extension.

EGRA and EGMA are both 15 to 30-minute tests administered orally to pupils in the early grades of primary school, typically around the third grade of primary. To date, these tools have been used in over 40 countries worldwide, including Uganda, and they are used by education ministries to identify and address learning barriers in their education systems.

The Secondary Grade Reading Assessments (SeGRA) and Secondary Grade Mathematics Assessments (SeGMA) was designed using the EGRA/EGMA template, however, it shifts from the mixed oral tradition in early grade testing to a completely written tradition in the secondary levels. The Girls Education Challenge – Transition (GEC-T) SeGRA and SeGMA contain a total of 3 sub-tasks each and demonstrate change in the level of difficulty of the test as girls 'progress to higher grades (Primary to lower secondary (O' level) and lower secondary to higher secondary (A' level)).

The EGRA/EGMA and SeGRA/SeGMA tools shall be supplemented by a pupil context interview, headteacher and teacher interviews to better understand the learning environment and triangulate all factors that affect a pupil's learning outcome. The choice of the learning outcome assessment tool was based on the Fund Manager's guideline for consideration while designing reading and numeracy assessments. All tools were adapted to suit the different needs of the girls with disabilities.

1.2 Girl's Education Challenge - Transition (GEC-T)

Across the world, 31 million primary age girls, most of whom come from the poorest and most marginalised communities in the most disadvantaged locations, ethnic groups, have never been to school. Over the last 20 years, primary enrolments for girls have improved along with boys but completion rates are equally low for both sexes. At the secondary level the differences between boys and girls' participation rates really start to show. Significant disparities exist within countries, with the poorest girls from rural areas most severely subject to educational disadvantage - even at the primary level. To reach the Sustainable Development Goals (SDGs) by 2030, progress on girls' education is critical and particularly SDGs 4 and 5 specifically related to education and achieving gender parity. SDG 4 specifically notes 'inclusive and quality education for all and promote lifelong learning'.

Through the Girls' Education Challenge (GEC), DIFD aims to help the world's poorest girls improve their lives through education and supporting better ways of getting girls in school and ensuring they receive quality education to transform their future. For 3 years, DFID had funded the GEC-1 project that aimed to enable 2089 girls with disabilities from low income communities in the Kampala Capital City area to complete education. By the end of GEC-1 in February 2017, 2063 girls had been retained, the lowest grade being in P.2 and the highest level being S.2.

The Girl Education Challenge Transition (GEC-T), is a follow-on project from the 1st phase of the Girl Education Challenge (GEC-1). The GEC-T shall therefore aim to support the same girls from GEC-1, and 500 boys with disabilities to complete the different education cycles- primary, lower secondary, upper secondary and TVET. The project Theory of Change is built on the need to address the individual girl gender and impairment related barriers to education; school-based, home and community-based and

policy related barriers that prevent girls with disabilities from completing primary school and transitioning into a pathway of their choice and capability.

1.3 GwD in CSU GEC-T Programme

The CSU GEC-T project supports 2063 girls with disabilities to complete the different education cycles- primary, lower secondary, upper secondary or transition into TVET. The target girls have been supported under GEC-1 phase which ended in February 2017. A limited number of boys with disabilities (500) will benefit from the project as response to the backlash experience during the GEC-1. The children are distributed in 116 primary schools, 134 secondary schools and 11 TVET institutions.

According to the Washington Group classification, the girls are classified as having difficulty seeing (61.7%), difficulty hearing (17.5%), difficulty walking or climbing stairs (15.3%), difficulty remembering or concentrating (23.1%), difficulty with selfcare such as washing all over or dressing (7.7%) and difficulty communicating (4.7%). The girls are in classes between grades P.2 and S. 2. The main focus of the project is girls' learning and transition as well as well as system strengthening to contribute to sustainability. The project is being implemented in low income communities of 4 Kampala City divisions of Nakawa, Kawempe, Rubaga and Central.

Categorized by age, the current beneficiaries fall under the following age brackets; 5- 9 years (403) 10-`15 years (1406), and 16 years and above (254). Most of the girls are now adolescents who are likely to face adolescent related barriers for example access to sexual and reproductive health services, sexual violence and exploitation and self-acceptance.

At family level, the education of girls may be affected by the gender perception about girls for example families may want to have their daughters drop out of school and get married after primary education due to the existing gender stereotype and the preference for boys. These barriers might lead to early pregnancies, early marriages and spread of STIs and eventual drop out of school if not addressed by the project. To reduce the education marginalization of girls with disabilities therefore, the project theory of change will revolve around addressing barriers at different levels thus individual child, community and family, school and system level.

At individual level, the project will support to build the capacity of the beneficiary girls in areas such as reproductive health, life skills, rights, career guidance and counselling among others. These are aimed at building the girls' confidence which has a bearing on the girls' ability to learn and transition. At community and family level, the project will focus on contributing to a positive attitude towards disability, gender and education through awareness creation and economic empowerment. These will in turn contribute to continued support to the girls with the aim of keeping them in school.

At school level, the project focuses on enablers to attendance and learning through; capacity building and sensitization of teachers, school authorities and peers and creating an accessible teaching and learning environment. At system level, the project focuses on engagements for system wide learning to contribute to policy and practice change.

The project theory of change therefore has 3 'higher-level' outcomes; learning, transition and sustainability. Learning will be achieved through 5 intermediate outcomes under potentially 8 headings, of which only the first is mandatory; attendance; school governance/management; quality of teaching; community-based attitudes and behaviour change; school-related, gender-based violence, economic empowerment, life skills and girls' self-esteem. These intermediate outcomes will

be achieved through 6 outputs. The interconnectedness of these outcomes, intermediate outcomes, outputs and activities is shown in the revised theory of change table/diagram.

2. EVALUATION STUDY APPROACH AND METHODOLOGY

2.1 Evaluation Purpose and Design

The Girls Education Challenge Transition project implemented by Cheshire Services Uganda (CSU) - Empowering girls with disabilities through education in Uganda - will develop and test strategies for improving education outcomes for girls with disabilities. The project will focus on girls at the primary and secondary level in four Kampala City divisions considered low income: Nakawa, Kawempe, Rubaga and Central. The goal of the project is to address the double marginalisation faced by these girls.

Over the implementation period of seven years the project aims to achieve the following outcomes:

- Improve literacy and numeracy outcomes for disabled girls in participating schools
- Improve retention and transition rates (across grades and across levels) for disabled girls in participating schools

Improving education outcomes will be achieved through project interventions intended to provide material and psychosocial support to disabled girls and to enhance the capacity of schools, households and communities to meet the needs of girls with disabilities. The interventions will:

- Improve daily school attendance of girls with disabilities;
- Promote gender responsive and inclusive classroom practices;
- Increase the self-esteem of girls with disabilities;
- Foster positive attitudes and perceptions of stakeholders (parents, communities, teachers, school officials) regarding the potential and rights of girls with disabilities;
- Enhance the livelihoods of participating girls' households and increase household investment/support in education.

A Monitoring, Evaluation and Learning (MEL) framework underpins this 7- year programme. The aim of the MEL framework is to test the project's theory of change and to provide evidence of what works and what does not work for the education of disabled girls. Formal Evaluation is a key component of the MEL framework and the focus of this report. External evaluation will be conducted by Montrose, acting as independent evaluators.

There will be 4 formal evaluation points where data will be collected from a number of different sources in order to gather evidence about project outcomes (learning, transition, sustainability) and intermediate outcomes (attendance, teaching quality, self-esteem, attitudes, socio economic). The evaluation points will take place as follows: 2017/18 (baseline), 2018/19 (midline 1); 2022/23 (midline 2) and 2024 (endline).

2.1.1 Baseline Evaluation Questions

The baseline evaluation seeks to assess the levels of proficiency in literacy and numeracy competencies among Girls with and without disabilities at the start of the CSU GEC-T Programme. This will provide a baseline by which to measure the impact of the planned interventions designed to (a) reduce the inequality gap in learning outcomes between girls with disabilities and those without, and (b) improve attendance and transition rates amongst GwD.

In addition, the baseline study aims to gather qualitative data to build on the overarching situational analysis at the system, school and community levels to ensure the planned interventions are aligned to current gaps and challenges, whilst suggesting additional opportunities for improvement. Within this context, the baseline study aims to answer the following research questions:

1. What is the current situation for girls with disabilities in terms of literacy and numeracy proficiency? How does this compare to girls without disabilities?
2. Are there any factors that look to positively or negatively influence outcomes of disabled girls? For example:

- What is the current **attendance and transition** rate for GWD? - To what extent is **teaching** being carried out in a gender and disability responsive way? - What level of **self- esteem** & career aspirations do GWDs have? - How do **stakeholders view** GWDs and the importance of education? - To what extent are families **economically equipped and empowered** to support their daughter's education?	*Which of these factors seem to impact most on GWD and their learning outcomes?* *Are there differences between girls with and without disabilities?* *Are there differences between disability type?* *Are there any additional barriers or factors?*

3. How far do the planned strategic interventions align to the current needs of GwD? What are the barriers?
4. Are there any additional opportunities that could be leveraged by building on current strategies to improve pupil outcomes?

2.1.2 Endline Evaluation Questions

The final evaluation seeks to provide evidence by which to assess the project outcomes and intermediate outcomes against the Theory of Change. It will be designed to:

1. **Assess the performance and implementation of the project** in delivering interventions providing material support to enable school participation and to enhance the capacity of schools, households and communities to promote greater participation in education and higher achievement for disabled girls.

   The evaluation will document the delivery of project interventions against targets established in implementation plans and assess their effectiveness in achieving intermediate objectives of changing teaching practices; and enhancing knowledge and attitudes towards girls with disabilities in schools, households and communities;

2. **Evaluate the impact of project interventions** on changes in literacy and numeracy and on retention/transition in schooling of girls with disabilities.

   A variety of methodological approaches will be applied in an attempt to assess whether the project has improved education outcomes for disabled girls and to understand how differences in: project strategies, disability type, household characteristics and school characteristics/practices influence learning outcomes of disabled girls.

3. **Assess Value for Money** of project strategies and interventions

   Estimates of costs for the various interventions will be developed in collaboration with the project provider. The cost information will be combined with impact evaluation results to assess VfM of project interventions. Indicators of VfM will be developed in a manner that enables the project implementer, the GEC fund manager and government policy makers to assess the relative returns on investment to alternative strategies for promoting improved retention and transition of disabled girls in the education system and in improving learning outcomes.

4. Assess the **sustainability** of project strategies and interventions

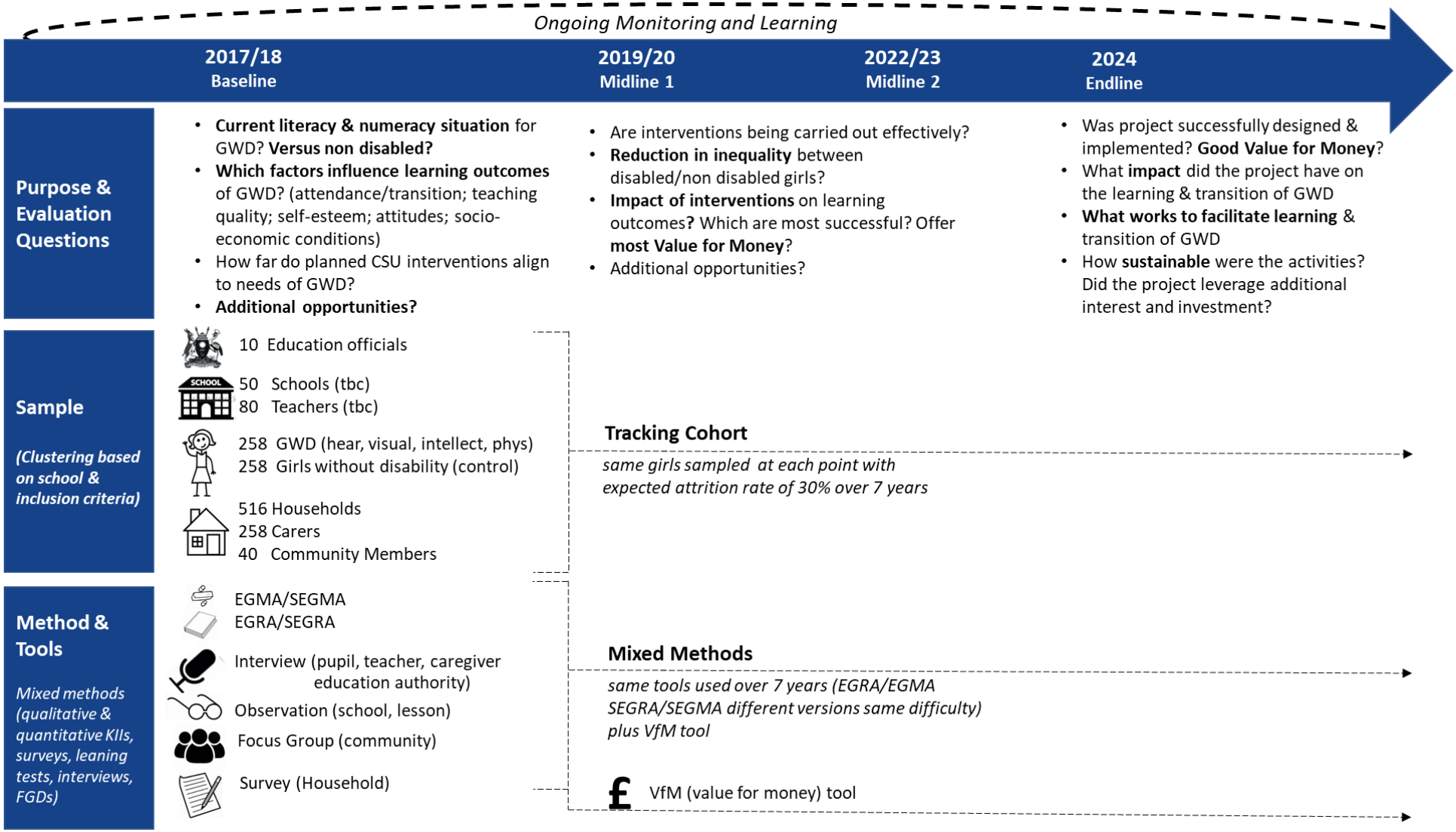
2.1.3 Summary of Evaluation Design

The study will use a gender and disability sensitive mixed methods approach. A sample of girls with disabilities will be determined by drawing a random sample from the overall cohort based on a statistical power of 0.8, a 0.05 level of significance and a minimal detectable effect size of 0.25 SD. Additional sampling protocols will be put in place to limit the number of schools, disability types and severity. This will facilitate the logistics of data collection whilst ensuring findings are generalisable to the wider population. A control sample of girls without disabilities will be drawn from within the same year as sampled girls with disabilities. This will enable Montrose to determine the extent to which the project has been successful in improving the inequality gap in learning and transition outcomes between girls with and without disabilities. Girls will be tracked longitudinally across the 7-year life cycle of the project. Data underpinning the various outcomes and intermediate outcomes (see Theory of Change) will be collected via a number of different tools.

Early and Secondary Grade reading and maths assessments (EGRA/EGMA/SEGRA/SEGMA) will assess learning outcomes. Household surveys and school checklists will provide data on transition outcomes. Additional interviews with pupils, teachers, caregivers and education authorities, coupled with lesson observations and school checklists, will provide key multilevel data around attendance, teaching quality, girls' self- esteem, attitudes and socio-economic circumstances of the girls' families. When matched across to learning outcomes data over time, this will provide a rich insight into the factors influencing learning and transition outcomes for GWD, the impact of programme interventions and additional barriers or opportunities for improvement. Value for Money analysis will be conducted at midlines and endline via a 'matrix of ingredients' approach to be outlined in subsequent inception reports for the midline and endline evaluations.

The diagram below presents the overall method and approach, and the evaluation questions underpinning each evaluation point.

Figure 1: 7 Year Overview Evaluation Approach for CSU GEC-T



2.2 Evaluation Methodology

The evaluation of project outcomes will employ a difference in differences methodology (DID) to examine the relationship between project interventions and improvements in learning outcomes and retention/transition rates for participating disabled girls.

However, the nature of the population of participants in the programme (disabled girls) presents challenges in developing a robust methodology incorporating an appropriate *treatment / non-treatment* control group for applying a pure DID methodology: Disabilities have low prevalence rates among the school population in Kampala (the site of the project). The approximately 2,000 girls identified by the CSU project (participants) are dispersed across more than 300 schools. With the low prevalence of disability, identifying a sufficiently large population of disabled girls who will not receive project support as a comparison group is logistically and financially infeasible.

Instead therefore, the evaluation will look to compare the disabled and non-disabled inequality gap in learning outcomes over time in intervention schools only. The evaluation will still be a DID approach, but it will focus on comparing disabled and non -disabled students rather than disabled students with intervention and disabled students without intervention. Although this approach lacks a clear "counterfactual" of non -intervention schools, or GWD not receiving support, we will use a baseline measure of learning outcomes and inequality gap prior to intervention in order to assess impact. Analysis will provide an implicit estimate of impact of treatment versus no treatment among disabled girls if we find that impact of interventions is "dose" dependent - that is to say- more intensive support results in bigger changes.

A more detailed justification for the proposed evaluation approach (and the move away from a one-off benchmarking approach) can be found in the annex 5.4 of this report. VfM will be examined via the approach detailed in section 3.4.2 of this report.

Boys in GEC-T *(see section 4.1 for more detail)*

Learning from GEC phase 1 indicates the importance of including boys within programmes. This is partly due to multiple programmes reporting a backlash from boys/families of boys and partly due to a wider DFID programming shift that emphasises the role of boys in the movement towards gender equality.

CSU encountered a backlash from boys with disabilities during phase 1 and as a result now provides support to around 500 boys. The level of support that boys receive is generally less than some of the girls. CSU monitors the support received by boys in the same way they do girls, completing project level outputs for sexes.

Boys will be included within the formal evaluation via a series of case studies. A small number of boys and their families will be selected to undertake learning assessments and participate in focus groups. Whilst this will not provide statistically significant data on learning and transition for boys with disabilities it will nonetheless provide rich insight into some of the challenges faced by boys with disabilities; how these relate to the challenges faced by girls with disabilities and the impact of the support given so far.

2.3 Sampling Framework

2.3.1 Sample Size Calculations for Learning Cohort

A sample size sufficient to detect differences in group means in learning outcomes (literacy and numeracy) was estimated using the assumption of random selection at the individual level (participants and non-participants). As per guidance provided by the GEC-T, the sample size calculation was based on a statistical power of 0.8, a 0.05 level of significance and a minimal detectable effect size of 0.25 SD. The evaluators used equal participant/non-participant groups in the calculation.

The suggested parameters result in a sample size of 398 individuals. To account for attrition, the initial sample was increased by 30 percent; 517 individuals split between disabled and non-disabled girls.

Sample size calculation: literacy/numeracy

t tests - Means: Difference between two independent means (two groups)

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Effect size d	=	0.25
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1
Output:	Noncentrality parameter δ	=	2.49
	Critical t	=	1.649
	Df	=	396
	Sample size group 1	=	199
	Sample size group 2	=	199
	Total sample size	=	398
	Actual power	=	0.801

Figure 2: Sample size calculations for learning cohort

While randomised at the level of the individual, the sample selection protocol for the participant group will include proportional representation of the four largest disability categories (visual, hearing, physical and intellectual). For technical and logistical reasons, less prevalent, severe and multiple handicapping conditions will be excluded from the sampling frame. While this imposes some limits on the interpretation of evaluation results, they will be generalisable to the majority of the types of disabled children found in classrooms in Uganda.[20] A school size protocol will also be used (minimum of 5-10 GWD in school) to ensure that school level observations can be generalisable and cross checked against learning outcomes.

This does not violate the random selection as the size of the school was not used as an initial criteria, rather, a rule will be set to replace GWD in schools with a low number of students. In this way, the sample size can be maintained at a reasonable and logistically feasible level, whilst providing generalisable results.[21]

2.3.2 Control

Non-disabled girls for the comparison group will be identified through selection at the school level. At each school where participants (disabled girls) have been identified through the randomised selection, the assessors will identify an equivalent number of non-disabled girls. The non-participants will be selected through a randomised protocol using school lists maintained by the school authorities.

[20] The categories included represent approximately 90 percent of the participants identified by Cheshire Services Uganda.

[21] The use of a simple random sample keeps overall numbers lower than a clustered sample: if schools were clustered and filtered we would require a much bigger sample size to account for the impact of clustering (variation of results within a school are smaller than variation of results across all schools)

2.3.3 Sample Size Calculations for Transition Cohort

While the proposed measures of literacy and numeracy are continuous variables (test scores), transition rates can be thought of as proportions; the percent of children successfully transitioning to the next level/grade of education, training or employment. A sample size sufficient to robustly estimate differences in the transition rates of disabled versus non-disabled girls was calculated using the assumptions of a 20 percent difference in the transition rates, a statistical power of 0.8 and a confidence interval of 0.05. The parameters yield a sample size of 154 – evenly divided between disabled and non-disable girls. However, the DFID-required transition sample, as presented in figure 3, is significantly smaller than the learning outcomes sample above. **We therefore propose to use the same learning sample to monitor transition**, meaning that learning and transition samples can be effectively linked.

Recommended sample size calculation: transition

z tests - Proportions: Difference between two independent proportions

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Proportion p2	=	0.6
	Proportion p1	=	0.4
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1
Output:	Critical z	=	1.645
	Sample size group 1	=	77
	Sample size group 2	=	77
	Total sample size	=	154
	Actual power	=	0.80

Actual sample size for transition

Final transition sample will be 517 pupils – using the same sample for learning and transition and linking these together

Figure 3: Sample size calculations for transition cohort

2.3.4 Tracking Cohort for Midline and Endline

All girls selected in the initial sampling (participants and non-participants) will be tracked over the life of the project and will assessed at project midlines and end line.

The project anticipates an approximate 30% attrition rate (and has thus increased the baseline sample size accordingly). This is based on the drop-out rate of girls from phase 1 of the GEC project. However, as this is a longitudinal study, the premise is to track the *same* girls, regardless of whether they have successfully transitioned or not. Montrose will take reasonable efforts to ensure that all girls are tracked across the life-cycle of the project.[22] A data management and cohort tracking plan will be developed and used in order to ensure girls are tracked effectively and data can be linked to individual pupils and schools.

2.3.5 Sample Size calculations for School, Household, Teacher, Caregivers and Education Authorities

The sample size for the pupil, teacher, caregiver interviews in addition to the household surveys and school observations, is determined by the sample size of the learning cohort. This is to enable effective cross examination around issues such as school and learning environment, socio-economic conditions, disability type and severity, attendance and transition, attitudes and perceptions against learning outcomes.

[22] Exceptions would be if a girl is un-contactable or has moved far away.

In practical terms, this means that for every girl sampled, the aim is to conduct interviews with her teacher, headteacher, caregiver (where applicable) and household. In addition, a selection of key personnel from GwD' regional education authority will be interviewed. Focus group discussions will be held in the girls' communities to ascertain community attitudes and perceptions for GwD.

The sample size for this aspect of the data collection is as follows:

Table 1: Sample size for baseline study cohorts

Tool	Expected Number of Participants
Pupil Interview	517
Household Survey	517
Caregiver Interview	258 (for GWD only)
Teacher Interview	80*
Headteacher Interview	50*
School Observation	50*
Lesson Observation	80*
Education Authorities	10
Community Members	40
**actual numbers for schools and teachers depend on the final sample for the learning cohort*	

2.3.6 Challenges and Limitations

There are challenges and limitations associated with the methodology of the evaluations and the following list is by no means exhaustive. Further limitations will be outlined in the pilot and baseline analysis reports:

1. The CSU Theory of Change centres around rolling out a number of interventions and activities designed to overcome barriers and improve learning and transition outcomes for girls. Much of the evaluation focusses on whether these interventions have been *effective* and good *value for money.* However, as outlined above, it was deemed not possible to include a control group of GwD in non- intervention schools (i.e. supported by CSU or other donors). This will mean that it will be difficult to evaluate effectiveness and VfM of specific interventions. We will look to mitigate this by including a protocol within the sampling frame to ensure we look at different baskets of interventions: some GwD are receiving more support than others, and so we can compare results within our overall GwD cohort. In addition, we will still be able to show whether the interventions rolled out have reduced the inequality gap between girls with and without disabilities
2. Girls with disabilities are not a homogeneous group and trying to accommodate inter-sectionalities in the set of participants in the study brings a high degree of complexity that is not easily accommodated, especially given Limitation 1 above. We have had to make choices regarding the extent to which we will undertake multi-variate analyses in the survey, and the extent to which results will be generalisable. As such, the analysis is selective rather than exhaustive and the important granularities for all respective groups will not be identified.
3. Due to the scope and timelines of the study, it is not possible at this stage to include girls with severe disabilities.[23] Whilst results will be generalisable to GwD in mainstream education it is important to note that they will not be comparable to girls with more severe disabilities. This is a topic for further consideration, particularly as severely disabled girls are often marginalised and excluded, and therefore it is important to reconcile the 'leave no-one behind' agenda when considering learning outcomes for girls.

[23] See adaptation workshop key assumptions

4. The study design is longitudinal and centres around tracking the same girls and their families over time, yet the girls in our cohort are complex and vulnerable: some girls do not have permanent homes and are living on the streets. Whilst robust mechanisms will be put in place to track girls, it may be that this is not always possible.
5. Adapting learning assessments for GwD has not been done before. We have worked to adapt tools in such a way that they retain the integrity of the initial EGRA/EGMA assessments (thus helping comparability where possible) whilst accommodating the needs of our girls. However, until these learning assessments are piloted and rolled out we have no evidence that our adaptations go far enough; that floor/ceiling effects will not be so huge as to distort distribution curves; or whether they will tell us anything meaningful about GwD's learning outcomes. There are other tests that have been developed for CwD which would be arguably more effective and give girls the best opportunity to perform, so we will need to reconcile results within the context of our cohort.

2.4 Research Methods and Tools Overview

2.4.1 Mixed Methods Approach

The evaluation will use a mixed methods approach to gather data around learning outcomes within the context of complex socio-economic and environmental factors.

A purely quantitative approach would provide a perspective which is broad yet surface-level, whereas a purely qualitative approach would ensure a deeper understanding of the issues but from a narrower population as less participants would be sampled. Therefore, when applied correctly, quantitative data can triangulate findings and add breadth to the outcomes of the deep-dive qualitative analysis ensuring the maximum breadth and depth possible given the parameters of the research study.

Additional data will be collected from key stakeholders across the community, school and system levels. At the system level, representatives from the Education Authorities will be interviewed and policies reviewed. At the community level, surveys will be administered to households and caregivers of beneficiaries included within the sample. Schools will be reviewed via a checklist to monitor accessibility, sanitation and resource improvements. Classroom observation data will be collected for each class. Each school head-teacher and class teacher will be interviewed using the head-teacher and teacher interview tools respectively. Further qualitative research and focus groups will seek to ascertain wider information about attitudes and perceptions towards girls with disabilities at all levels. It will also gather information about barriers and enablers to GwD's education and the impact of CSU project interventions.

Development of the learning assessment tools (EGRA/EGMA/SeGRA/SeGMA), observation instruments and interviews are explored further in section 1.8.

There are several research strategies associated with a mixed methods approach. The Evaluation Team will utilise two of the three strategies associated with a mixed methods approach – transformative procedures and concurrent procedures. The transformative procedures strategy is appropriate for application in the evaluation study because the assessor uses a theoretical lens that provides a framework for topics of interest, methods for collecting data and outcomes or changes anticipated by the study. Certainly, with respect to the CSU Evaluation study, the Research Study Team has a framework for topics of interest (as detailed in the research study questions above), methods for collecting data (as detailed below) and changes anticipated by the research (the research study recommendations for strategies and approaches to be integrated into future CSU programming).

The team will also utilise a concurrent (rather than a sequential) procedure whereby quantitative and qualitative data are collected at the same time during the study. The collection of the different types

of data is converged in our study due to time constraints; however, the convergence should not affect our ability to provide a comprehensive analysis to respond to the research questions ensuring the analysis is integrated in the interpretation of the overall results. In concurrent procedures, one form of data can be nested within another larger data collection procedure in order to analyse different questions.[24] Given that CSU is working at and across many levels and given the condensed time frame for the baseline study fieldwork, collecting quantitative and qualitative data simultaneously is sensible. In addition to our own 'nesting' of one form of data within another larger data collection procedure, it may be possible, for DFID to use our research study primary source data within the larger body of GEC-T data.

Although grounded theory and case studies are most commonly associated with purely qualitative research, the Research Study Team will nonetheless use grounded theory to inform our research study. In grounded theory, the assessor *"…attempts to derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information. Two primary characteristics of this design are the constant comparison of data with emerging categories and theoretical sampling of different groups to maximise the similarities and the differences of information."* [25] The team will be engaging in this iterative process throughout the course of the fieldwork and data analysis stages

The team will use a survey to collect quantitative data to address aspects of the research questions. The qualitative and quantitative research tools that will be used during the study are described below. The team will not use other research strategies such as ethnographies or experiments.

In order to ensure effective and efficient implementation and delivery of evaluation results for the *CSU GEC-T Programme*, the technical team will maintain an approach that is purposefully reflective, gender and disability sensitive and encourages collaboration. The lessons that have derived from the *CSU GEC Programme Phase 1* and from experience working with girls with disabilities across Uganda are reflected in a strategy that underpins the delivery of this project as follows:

- The evaluation will continue to foster a closely collaborative approach complementing the policies, priorities and activities of the GoU and its partners. This collaboration will be purposefully encouraged through communication, consultation, participation, presentation and discussion in the planning, implementation, reporting and reflective phases of the project.
- The project will adhere at all times to a strict child protection policy. This will underpin all methodological approaches and influence how the research will be conducted
- The evaluation will be carried out in a gender and disability sensitive manor

2.4.2 Tools Overview

The qualitative data tools include Key Informant Interviews (KII) using a semi-structured interview protocol or a questionnaire; a teacher lesson observation using both free text and scoring mechanisms; structured focus group discussions. The quantitative tools are based around three key

[24] According to Kreswell (2003), "Sequential procedures are those in which the assessor "seeks to elaborate on or expand the findings of one method with another method. This may involve beginning with a qualitative method for exploratory purposes and following up with a quantitative method with a large sample so that the assessor can generalise results to a population. Alternatively, the study may begin with a quantitative method in which theories or concepts are tested, followed by a qualitative method involving detailed exploration with a few cases or individuals."

[25] Stake (1995) cited in Kreswell (2003).

areas. Learning Assessments including EGRA, EGMA, SeGRA, SeGMA, adapted for girls with various disabilities, will measure learning outcomes at an individual child level for all children in the sample. A school checklist will be used to capture data around school environment (including accessibility and sanitation, access to resources, policies). A series of surveys and/or questionnaires will be developed and administered to teachers, caregivers, pupils and households, designed to provide additional information around important contextual issues such as disability, self-esteem, socio-economic status and stakeholder attitudes and perception.

Key Informant Interview Using a Semi-Structured Interview Protocol - The KIIs at the system level will be conducted by the disability inclusion specialist assessor using a semi-structured interview protocol consisting of several broad, open-ended questions and a set of follow-on probing questions. During the interview, the interviewer will take hand-written paper-based notes and an electronic voice recorder, where possible and permitted, will be used (see Section 4.2 Research Ethics). After the interview, the interviewer will produce a cleaned verbatim electronic transcript of the interview in Word format.

Teacher Lesson Observation – Lesson observations will be conducted by the Assessor Team Leader using an observation tool and checklist, comprising both free text elements allowing for open observation, and checklists combined with scoring mechanisms designed to standardise responses. The tool will comprise sections across several domains such as gender and disability inclusivity and teacher responsiveness. Some of these domains will contribute to an overall composite score which will enable Montrose to determine the overall level of disability and gender responsiveness. Data will be collected via electronic tablets.

Focus Group Discussions- The assessor s will facilitate 4 pre-selected groups of approximately 10 individuals in 2 different half-day focus groups in Kampala. The discussion protocol will aim to elicit detailed input about the barriers and facilitators to the education of GwD, whilst observing attitudes and perceptions of those present. The assessor s will take hand-written paper-based notes that capture small and large group discussions as close to verbatim as possible. In the small groups, an electronic voice recorder, where possible and permitted, may be used. This method will build on the findings already available via the quantitative research component, and will enable Montrose to take a deeper dive into barriers and facilitators at the system and community (including household) levels.

EGRA/EGMA/SeGRA/SeGMA– Primary and Secondary learning assessments will be carried out by assessors at the school level. These tools are designed to measure literacy and numeracy of children in certain areas such as reading, listening, comprehension, writing, algebra, geometry, mathematical word problems and equations. Whilst these areas are marked separately, they will be combined together into an overall composite literacy and numeracy score.

Whilst these tests have been adapted for GWDs, the overall difficulty or level is designed to be consistent with non-disabled children. This is so that useful and comparable data is gathered around how GWDs are performing in line with their school year. In that sense, adaptations made were predominantly focussed around environment, presentation (stimuli support), timings and instructions. So, whilst helping GWDs these adsptations will not detract from the integrity of the tests and should not make them too easy for children without disabilities. With that said, there will be constant monitoring of floor and ceiling effects across all girls – and modifications or additions will be made post piloting if necessary.

Household survey – Household interviews will be collected for every girl sampled. It is anticipated that they will take place within the school but it may be necessary to conduct some surveys in the home environment or over the phone. Assessors will ask a series of closed questions around demographics

and household composition, attitudes and perceptions, girls' transition and economic conditions. A number of open questions will also be asked to ascertain views around CSU interventions, and barriers/facilitators to learning. Answers will be collected via an electronic tablet and uploaded daily.

Pupil Interview-The Pupil interviews will be conducted with every girl by the assessors immediately after they have completed their learning assessments. Assessors will ask girls a series of questions and then note responses via an electronic tablet. The interview will combine open-ended questions with checklists combined with scoring mechanisms designed to standardise responses. The tool will comprise sections across several domains such as socio-economic conditions of the home, disability severity, life skills and career aspirations, self-esteem, barriers to learning. Data will be submitted electronically every day.

Caregiver Interview- The caregiver interview will be conducted with the primary caregiver of the child. If this person is the same as the household head, then we will combine the interviews so that one follows on from the other. Assessors will ask caregivers a series of questions and then note responses via an electronic tablet. The interview will largely be made up of checklists and closed ended questions, and will comprise a comprehensive section on girls' disability type and severity via the Washington Group of Child Functioning Questions, girls' transition, school governance and involvement, barriers to learning and impact of CSU interventions. Data will be submitted electronically every day.

Headteacher and Teacher interview- These interviews will be carried out in every school/lesson that girls in the sample attend. Both interviews will be conducted by the assessors via electronic tablets and will comprise open and closed ended questions across a variety of domains including experience, language of instruction, resources, knowledge, attitudes, barrier to GWDs' education

Value for Money Matrix Tool- This tool will be used to help provide the information necessary to facilitate VfM analysis at midline and endline. The CSU project team will be asked to provide inputs for each intervention , and these will be cross checked against potential gains in learning to produce an overall VfM estimate .

2.4.3 Overarching and Subordinate Evaluation Questions by Research Method

Table 2 below outlines the research questions to be addressed at each level of the evaluation from baseline through to midline 1 and 2 and finally through the endline evaluation and the tools which will be employed to answer each question.

Evaluation Questions	Research Method								
	Literature Review	Learning Assessment (EGRA/EGMA/ SeGRA/SeGMA)	School Checklist	Lesson Observation	Survey (Household, Caregiver, Pupil, Teacher)	Public Records (e.g.census/ UBOS)	Key Informant Interview	Focus Group Discussion	VfM Ingredients Matrix
Baseline									
Baseline Q1: What is the current situation for girls with disabilities in terms of literacy and numeracy proficiency? 1.1 How does this compare to girls without disabilities? 1.2 Is there variation by disability type?	X	X							
Baseline Q2: Are there any factors that look to positively or negatively influence outcomes of disabled girls?	X	X	X	X	X	X	X	X	
2.2 What is current attendance & transition rate for GwD			X			X			
2.3 To what extent is teaching being carried out in a gender and disability responsive way?			X	X	X		X	X	
2.4 What level of self- esteem & career aspirations do GwD have?					X				
2.5 How do stakeholders view GwD and education?	X				X		X	X	
2.6 To what extent are families economically equipped and empowered					X			X	
2.7 Out of the factors listed above *(2.2-2.6),* which impact most on learning outcomes for GwD? Are there differences between disability types/ those with and without disability?									
Baseline Q3: How far do planned strategic interventions align to the current needs of GwD? What are the barriers?		X		X	X	X	X	X	
Baseline Q4: Are there additional opportunities to leverage by building on current strategies to improve pupil outcomes?		X							
Midline									
Midline Q1: Are interventions being carried out effectively?		X	X	X	X	X	X	X	

Midline Q2: Is there a reduction in inequality between disabled and non-disabled girls?		X		X		X			
Midline Q3: Has there been any impact on learning outcomes? Which are most successful and offer value for money?	X	X	X	X	X	X	X	X	
Midline Q4: Are there any additional opportunities?	X		X	X	X		X	X	
Endline									
Endline Q1: Was project successfully designed & implemented?		X	X	X	X		X	X	
Endline Q2: Was the project good Value for Money?		X	X	X	X		X	X	X
Endline Q3: What was the impact on learning & transition of GwD		X	X		X	X			
Endline Q4: What works to facilitate learning & transition of GwD	X	X	X	X	X	X	X	X	
Endline Q5: How sustainable were the activities? Did the project leverage additional interest and investment?	X		X	X	X		X	X	X

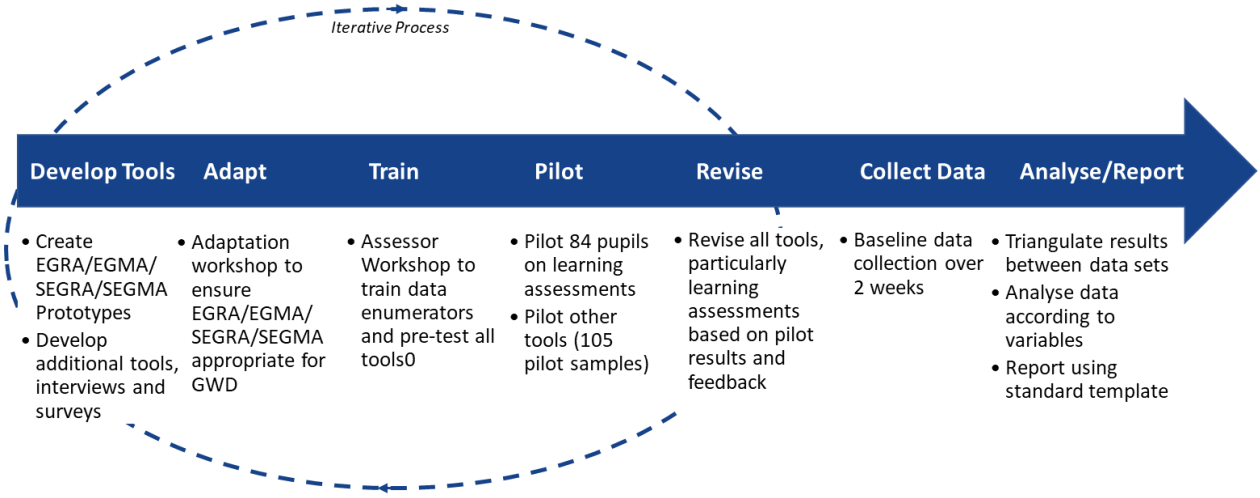
Table 2: Overarching and subordinate evaluation questions by research method

3. DATA PREPARATION, COLLECTION AND ANALYSIS

Preparing for the data collection involves a number of steps, as outlined below. All tools will be developed and piloted prior to baseline before being used at every subsequent evaluation point (note that learning assessment *content* will change but the level of difficulty will be consistent across different versions).

It is important to note that the development of tools is an iterative process. This is especially apparent for the learning assessments (EGRA/EGMA/SeGRA/SeGMA), as they are adapted and revised for GwD, but it is also applies to additional tools, interviews and surveys in order to ensure collection of the correct data in a gender and disability sensitive manner. The following section expands on each stage of this process.

Figure 4: Stages involved in the preparation for data collection



3.1 Developing the Tools and Adapting for GwD

3.1.1 Learning Assessments (EGRA/EGMA/SeGRA/SeGMA)

Due to the complex nature of this project, development of the learning assessments requires an iterative approach as outlined above. Primary learning assessments such as EGRA/EGMA have been widely developed and used Worldwide, and have also been adapted and used within the context of Uganda. However, they have not been widely adapted for children with disability types.[26]

The development of secondary assessments (SeGRA/SeGMA) is a new concept for the GEC-T programme: these assessments have never been developed or tested before. It therefore requires the project to develop these from scratch before then adapting for girls with disabilities.

In order to develop the learning assessments, the technical team will first review existing tests, guidance and the wider literature to develop prototypes. These prototypes will then be used as a basis for discussion at an adaptation workshop, where disability experts will work with the technical team

[26] Some organisations have begun to adapt EGRA/EGMA for specific disabilities such as visual (SightSavers International), but this work is still in the development phase. No organisation has attempted to adapt these learning assessments for multiple disability types. Refer to attached Global Reading Network summaries of adaptations to date for EGRA.

to ensure the tests are suitable for GwD, making the relevant adaptations for each disability type. The final product from the adaptation workshop will be submitted the fund manager for external verification before being revised again for piloting. The section below provides more detail around this process.

3.1.1.1 Developing the learning assessment prototypes

In order to develop the primary and secondary learning assessment prototypes for our cohort, the technical team conducted a review of the available literature, the curriculum of Uganda, and guidance provided by the Programme Fund Manager. Consultations were also held with disability and EGRA experts and assessor s in the USA and UK who have worked on similar programming in other countries. This enabled the development of prototypes with subtasks as follows:

Table 3: Subtasks that were included in the initial learning assessment prototypes

Subtasks included in the initial prototypes for learning assessments			
EGRA (set at P3-4 level)	**EGMA (set at P3-4 level)**	**SeGRA (set at P5 level)**	**SeGMA (set at P5 level)**
Letter Sounds Non-Word Reading Oral Reading Reading Comprehension Listening Comprehension English Vocabulary	Number Identification Number Discrimination Missing Number Addition Level 1&2 Subtraction Level 1&2 Word Problems	Reading Assessment (x2) Writing Assessment	Multiplication Division Ratios Fractions Geometry Equations Percentages Word Problems

3.1.1.2 Challenges of Adaptation for GwD

- **Varying types of disabilities** within the cohort means that adaptations need to be sensitive to a range of different disability needs.
- **Varying levels of mild, moderate and severe disabilities** within the cohort, coupled with a lack of information on severity at the individual level, means that difficult decisions around inclusion in the sample need to be made in order to make adaptations that will cover the widest range of disability types and severities.
- **Adaptations specific to GwD have not been done before,** which means there is limited best practice guidance available and no real precedent for what might work. [27]
- **Complex gender, disability sensitivities and child protection** issues need to be reviewed concurrently to ensure that GwD will not be overwhelmed with the assessment process and to ensure that tests are designed in a way to optimise their performance. This includes difficult decisions both within the administration guidance and the learning assessments themselves, as well as in the dissemination and piloting process to balance programme level guidance with the uniquely complex needs of disabled girls.
- **The cross comparability of results** both at a project level (between disability types) and at a programme level requires careful consideration to ensure that adaptations are sensitive enough to allow GwD to participate fairly in the assessment process and in the comparisons what will be made in the progress against a control group and the larger GEC-T cohort, whilst balancing the need to maintain integrity to the fundamental structures and marking schemes underpinning the learning assessments.
- **The programme is 7 years,** meaning that many of our cohort girls may conceivably transition between primary and secondary education levels during the course of the programme. The

[27] Some organisations have begun to adapt EGRA/EGMA for specific disabilities such as visual (insert reference), but this work is still in the development phase … but no organisation has attempted to adapt these learning assessments for multiple disability types.

Fund Manager guidance that requires all girls to sit all versions of tests they may be exposed to at every level of assessment is discouraged by the evaluation technical team for numerous reasons, including: 1) that assessing a lower or middle primary student in a secondary exam will not provide you with any other information other than that they cannot perform the test; 2) that the administration guidelines for both primary and secondary assessments vary significantly, and the administration procedures recommended by disability experts on our team lengthen the time of testing to allow for girls' full participation, leading to a longer testing process that will not allow for multiple assessments in one day; 3) that providing two levels of an assessment to GwD may put them at unnecessary risk of being overwhelmed; and 4) that the outcome and justification for administering multiple assessments to a child that essentially measure ultimately the same thing – reading fluency and comprehension – is not clear. These complexities have been considered in the data collection method outlined below. In short, we accept the premise to give the same version of the test to each child to show individual progression, but in order to reduce the stress on children we will exclude P1 and P2 children from the study, P3-P4 children will always only sit the EGRA/EGMA at all evaluation points, and all other children will sit both the EGRA/EGMA and the SeGRA/SeGMA at all evaluation points. This approach will be tested to see whether it is appropriate in piloting.

3.1.1.3 The Adaptation Process

The preliminary adaptation process was completed during an intense one-week workshop comprising the Montrose technical team and 8 experts across a range of disability fields.[28] Workshop attendees and details of the schedule can be provided upon request.

The learning assessment prototypes were used as a basis for discussion, coupled with detailed guidance from the literature and the Fund Manager around the tools and additional subtasks available. A combination of group work meant that cross-cutting adaptations and assumptions were discussed and agreed at the wider group level before being further refined and validated within specific disability focussed sub-groups.

Assumption 1: Only girls with mild to moderate disabilities will be included in the study and adaptation process

After lengthy discussion it was agreed that only girls with mild to moderate disabilities will be included within the study. This was agreed due to a number of factors. Firstly, there was limited access to information around disability severity at an individual level, making it difficult to ascertain the full spectrum of severity across different disabilities.[29] The information that *was* available pointed to low numbers of girls with a very severe disability: around 8% of those identified with a visual disability as totally blind and around 12% of those identified with a hearing disability as totally deaf. In addition, due to the lack of information it was not possible to determine whether any or all of these children use Sign Language or Braille to communicate, and if so, which form of these they use. Similarly, as CSU are focused on supporting GwD in mainstream and not specialised schools, there are very few girls with severe disabilities permitted to attend mainstream schools as they do not have the facilities to cater for their needs. It was therefore agreed to limit the inclusion criteria to 'girls that are able to see, hear and communicate at some level'.

[28] As discussed above, the adaptation will be an iterative process and tools will continue to be adapted, refined and developed throughout the inception period

[29] Information on disability severity is not currently available from CSU. Either it has not been collected at the individual level, it is not available electronically without going through a number of paper records, or it has not been validated (i.e. children have been categorised by their school in a non-robust and inconsistent way)

Whilst this does raise issues when considering the 'leave no-one behind' premise underpinning the project, it was felt that this is the most practical way forward given the issues mentioned above, and that the baseline data collection could provide a useful opportunity to collect more nuanced data concerning disability severity via use of the Washington Group Child Functioning Questions, as well as other information captured about students in the cohort following the selection of schools for the study.

Assumption 2: Best Practice Guidance will be adhered to

Whilst there is limited best practice guidance available in adapting learning assessments for girls with disabilities, the group collectively agreed to consistently apply any suitable guidance available. This includes aspects such as time extensions and stopping rules for certain subtasks (see below).

Assumption 3: Cross-cutting adaptations will be applied consistently where possible

The group discussed the nuances between disability types and agreed that many adaptations at the *content/ test/stimuli level* could be cross cutting. This premise is helpful for a number of reasons:- firstly it will aid in comparability of results both within this project and between other similar endeavours. Secondly, some children may have multiple disabilities, even if these are not immediately clear. Finally, the *same* cross-cutting adaptations can often help girls with *different* disability types, even if the underlying reason for the adaptation is different. For example, creating bigger font size and spreading subtask content onto a new page is useful for those with visual disabilities, but also for those with other intellectual disabilities who would benefit from being able to concentrate on one letter/word/number at a time rather than being overwhelmed by a complicated grid (see example below).

It was agreed that disability-specific adaptations would be most appropriate at the *dissemination and environment levels,* for example, how instructions are given; how many prompts are required; how stimuli are placed and utilised; how the testing environment is set up, etc.

Figure 5: Example stimuli for letter names

<table>
<tr><th colspan="2">Example Stimuli for Letter Names</th></tr>
<tr><th>Standard</th><th>Adapted</th></tr>
<tr><td>"Show children grid of letters and ask them to read as many as they can"
(one A4 page used)

Examples: a V l

1 2 3 4 5 6 7 8 9 10
A s i M v o y C r T
L p V h n U W f B J
D R k z j N a S e G
H F o L i x e l m d
n V m h y t X k a H
y c l g L T l e n t
S w f R t s o b P C
T z E r e S f c H F
e N E Y o C h i o d
K U p a t Q D P W Z</td><td>"Show children each letter in turn"

(multiple A4 pages used)

A a</td></tr>
</table>

Assumption 4: Additional and supporting information about disability will be gathered prior to the assessment taking place

The group discussed the need to capture reliable data around disability type and severity directly from the child. This is to ensure that they meet the inclusion criteria, to triangulate data received via other data collection processes and to ensure that they are given the version of the test/instructions most suitable to their disability. It was agreed to use a standard set of questions based on the domains of the Washington Group, but adapted so that they are suitable for direct use with young children.

Assumption 5: Children will set tests set at the appropriate level for their grade: An upper and Lower version of EGRA/EGMA will be created (please note that this decision was later changed as a result of external feedback from the fund manager)

The idea behind this approach is to ensure appropriate scaffolding and progression in level of difficulty between similar and divergent subtasks, e.g. length of passages and complexity of vocabulary and other words. Additionally, some subtasks that are aligned with pre- and early reading and numeracy skills are inappropriate and/or unnecessary to assess in older learners. [30]

Assumption 6: Assessors will be robustly trained and supported to behave in a disability and gender sensitive manner

The group discussed and agreed some key training components to ensure that assessors are sensitised to different disabilities, and able to administer learning assessments in accordance with the appropriate disability adaptation manual (developed by disability sub groups during the adaptation workshop). Modules around child protection policies and observation checklists were also agreed by the group as a critical component of the assessor training. It was also suggested to pair each team of assessors with a relevant disability expert to ensure project team s have ongoing support whilst giving each child additional support (where required) to allow them to participate fully and equitably in the study.

Assumption 7: Piloting will form a crucial part of the final development process

The group discussed that the project was covering new ground, and that piloting is crucial in order to test hypotheses and assumptions made about the tools, stimuli, testing procedures and assessment content during the adaptation workshop. In some instances such as SeGRA, it may be required to test different versions to ensure correct level of adaptations and adjustment of difficulty.

3.1.1.4 Key adaptations made to learning assessments

Adaptations to the learning assessments have been made in line with the aforementioned assumptions. Adaptations have been made at various different levels, including content, administration, presentational and environmental. The table below outlines and justifies some of the key adaptations made.

[30] Note that following consultations with the FM, we have created a merged version of each assessment geared towards a Primary 3-4 child.

Table 4: Summary of key adaptations made to learning assessment tools

Summary of Key Adaptations				
Learning Assessment	**Subtask**	**Adaptation Category**	**Adaptation Made**	**Justification**
All assessments (primary and secondary)	All	Administration	60 second timings extended to 3 minutes	The timing was extended to allow students of varying disabilities time to process the assessment, respond to instructions and allow the assessor to prompt multiple times. We will mark where the child reaches in the sub-task at 60 seconds to validate this change during the pilot. This modification is consistent with other similar assessment modifications made for children with disabilities according to the Global Reading Network and USAID. Time recommendations for SEGRA and SEGMA assessments have also been increased from 15 to 30 minutes. It is recommended that students are allowed to work through the assessments at their own pace without fear of an assessor stopping them during their work. If students exceed the 30 minutes per subtask, an assessor will sit and discuss the remaining questions with the student and determine whether they should be allowed more time (as they are actively working) or if they are unable to complete or continue the test due to lack of ability or fatigue. These outcomes for all assessments will be noted in the pilot phase and final recommendations made accordingly)
EGRA/EGMA	All	Administration	Auto-stop rule removed	Stopping rules on the EGRA and EGMA have been removed entirely. All students will be allowed to continue through each of the subtasks and stop when the time is up or they finish the assessment tasks. This is to ensure that students are given a chance for success throughout the assessment and 'warm up' in their response time and performance, as many students with disabilities (especially intellectual, visual or auditory) may take more time to understand the subtasks and provide responses. This will also ensure that more difficult questions are asked during the pilot to allow us to check and confirm the levelling of the questions. If a child is not responding or stops providing responses during the administration of the sub-task, the assessor will provide additional prompts or examples and encourage the child to continue. We will evaluate this approach during the baseline to confirm its practicality and appropriateness.
EGRA/EGMA	All	Administration	Skipping rule extended	Skipping rules on EGRA and EGMA have been increased from 3 to 15 seconds to allow students with processing difficulties more time to review and respond to questions. This will also ensure students do not feel rushed during the exercise and have an opportunity to perform.
EGRA	Oral Reading Fluency and Comprehension, Listening Comprehension	Administration	Stimuli left in front of child during entire assessment	During the reading comprehension portion of the oral reading fluency test, the stimuli will be left in front of the child while the questions are asked. This is to allow students with intellectual processing, visual and auditory disabilities support to recall information. It also will help boost the confidence of students as they respond to questions, allowing for a better response rate. It does not guarantee that questions will be answered correctly, nor that students will be able to locate answers to questions within the text. During the pilot, assessors will take note of how students use the stimuli (or not) and provide recommendation regarding the inclusion of this modification subsequent assessments.
All assessments (primary and secondary)	All EGRA/ EGMA and SeGRA/ SeGMA tasks requiring stimuli	Presentation	Letter/number grids are not to be used: present each letter, word, or number on a separate page. Stimuli is printed on cream paper with black font and not laminated.	In order to reduce on children's difficulty reading multiple items on a page or difficulty concentrating on numbers and letters for children with intellectual and visual disabilities, children are presented with only one item per page in the EGRA and EGMA stimuli packets (e.g. letter, word, number, equation to solve). This is important to allow them to focus on one question at a time, reduce confusion and ensure they are not overwhelmed with the task they are asked to perform. Content has also been printed in large fonts to ensure readability for children with intellectual and visual disabilities. All stimuli will be printed on a cream background with black writing to ensure children with visual and intellectual disabilities are able to easily read and use the stimuli packets. Both the SEGRA and SEGMA have been produced in a regular and large print version, the latter for children with visual disabilities. This will ensure they are able to read and respond to the protocols.

EGRA/EGMA	All EGRA/ EGMA tasks	Content	Whole test; 2 versions were created of each assessment for upper and lower primary pupils, aligned to Uganda's curriculum (this was subsequently combined)	An upper and lower primary version of each assessment was originally created that aligned to the skills students are expected to demonstrate in lower or upper primary for reading and math, with progressing levels of difficulty in tasks across the two test versions. This modification was recommended to ensure that students with varying disabilities could access and process the assessment subtasks according to their age and ability levels, and to ensure that they felt capable of being able to attempt and to answer/respond to the questions and tasks presented to them. Meeting children at their level with an assessment is important not only for children with disabilities. A reading passage that is too long or has too many complex words will not be read by a younger child, nor will the comprehension questions be answered. Likewise, a child that has not been taught advanced addition or multiplication will not be able to complete those subtasks as they have not been introduced to that content. The creation of upper and lower primary reading assessments had significant crossover in subtasks (e.g. word reading, oral passage reading, reading and listening comprehension), just slightly more complex, multi-syllable words in the upper primary version, which also dropped subtasks like letter and syllable recognition, which are beginning reading skills and not relevant for assessment in children who are already readers. Likewise in the EGMA, subtasks lie addition, subtraction and word problems appear in both versions, just slightly higher order questions presented in the upper primary version. Subtasks like number identification and sequencing were dropped in the upper primary assessment as they are beginning numeracy skills, replaced by multiplication and division subtasks in keeping with expected numeracy outcomes for older children. Upon consultation with the FM, a combined version of EGRA and EGMA were created for the assessment (see below).
SeGRA	All SeGRA tasks	Content	Created 2 versions (open and closed questions, e.g. multiple choice)	Multiple choice has been included because: • It is harder to recall an answer than recognise it – this modification helps students with short-term memory or difficulties with concentration • Multiple choice helps to minimise the amount of information children with disabilities have to remember • It encourages the validation of their knowledge • Reduces potential for fatigue if some students have difficulty in writing We will pilot open and closed ended questions in the assessment to determine floor and ceiling effects for each question type and overall level of fatigue in testing with students of various disabilities. We will evaluate the results after the pilot and determine the best approach to engaging students in these sub-tasks following the results from the pilot. Our goal is to allow students of various disabilities to access the test and be successful in it; this modification is intended to achieve that and will be evaluated, and a final recommendation made following the pilot. Note that even the closed ended question version has some open-ended responses in order to trial run how students respond to this approach to questioning.
SeGRA/SeGMA	All	Environmental/ Administration	Administration procedures	Testing environment modifications include testing in a quiet room with no distractions, testing in a place with good natural light, and ensuring students have all available modifications required as per the assessment they are taking. Small group administration will be done for the SEGRA and SEGMA for children with intellectual disabilities to ensure they understand directions. Other small groups will be formed for children with auditory disabilities and visual, as required.

Summary of Key Disability -Specific Adaptations				
Learning Assessment	**Disability Category**			
	General	**Hearing Disability**	**Visual Disability**	**Intellectual Disability**
EGRA/EGMA	• Assessors should have plain clothes, no flowers or multicolour patterns. • Stimuli should be cream background with black bold writing and no lamination (to reduce glare). • Reduce length of instructions and allow repition of instructions as many times as required to ensure the child heard, understood and remembers instructions for the subtask. As many children have potential challenges with process and working memory, we will support them by providing examples and instructions throughout the assessment as needed to ensure they are able to complete or attempt to complete the sub-tasks they are given and have an equal chance of performance. • Let children touch materials, hold and move stimuli, and use counters for every maths subtask in primary (manipulating objects helps with processing for tactile learning needs). • Minimal distance between assessor and learner. • Prior to the assessment, students and teachers will be prepared for the assessment and have a chance to practice a few similar subtasks in a large group setting prior to baseline. This ensures they are comfortable with the test and reduces test anxiety. It will also allow teachers to become familiar so they are comfortable talking to their students about the exercise and dealing with their worries or concerns. • Assessors will be used to administer the assessment with students. Disability Specialists (Advocates) will be on hand to support and offer interpretation for children with difficulty communicating. This will be trialled during the pilot to confirm the best approach to the baseline. • A series of questions will be asked to each sampled child prior to the assessment to confirm their	• Shape of mouth and directly facing the child when reading out instructions. • Eye contact maintained throghout the assessment. • Articulate instructions at a reasonable pace for the learner and repeat as often as necessary. • Stimuli should be within signing zone to allow for extra support as required. Note that no assessments have been created for children who are fully deaf. • Sign language intepreter or speech therapist if necessary to advise. • The voice of the assessor should be loud enough and varied depending on the specific learners' disability severity.	• Font size should be increased with variation in sizes (e.g. fonts 28, 36). • Stimuli should be A4 landscape with one question per page. • Sitting position can be modified and adjusted to avoid glare. • Lighting should be adequate and the room where the assessment takes place should have a mix of natural and artificual lighting to help the child see clearly. • Children will keep the stimuli in front of them at all times during the assessment.	• Continuous prompting while assessing. • Provide instructions and examples multiple times and as often as needed. • Check for understanding of instructions. • Articulate instructions at a reasonable pace for the learner. • Allow time for the child to rest between subtasks and take a break as needed. • Assessors will be used to administer the assessment with students. Disability Specialists (Advocates) will be on hand to support and offer interpretation for children with difficulty communicating. This will be trialled during the pilot to confirm the best approach to the baseline. • Testing environment to be in a quite room with no distractions and no other pupils testing nearby.

	dominant disability type and any important information that may affect their assessment, modifications or testing environment. These have been submitted in another document. • The number of items in a sub-task for the EGRA and EGMA have been modified and reduced overall. This is to ensure students taking the assessment do not feel overwhelmed by the number of items in each subtask and that they do not experience assessment fatigue.			
SeGRA/SeGMA	• Students will have a chance to both write and tell their story in the writing assessment. This ensures those with writing or processing disabilities have an equal chance for success. The same rubric will be used to analyse the written and spoken versions of the story and results recorded separately. • During small and large group administration, directions will be read aloud and confirmed for all students to ensure they understand the tasks they are to complete. • Extended to 30 minutes to allow for all students to take their time in responses as is best practise when working with children with disabilities. • Both a fiction and non-fiction reading passage are provided to ensure students have a e fun and interactive passage to start with to capture the students' attention and allow them some chance of success in text analysis and interpretation.	Sign language intepreter or communication expert on hand if necessary to advise and offer support.	• Font size should be increased with variation in sizes (e.g. fonts 28, 36). • Lighting should be adequate with a mix of natural and artificial lighting.	Small group administration will be done for the SeGRA and SeGMA for children with intellectual disabilities to ensure they understand directions. Other small groups will be formed for children with auditory disabilities and visual, as required. For students with dyslexia the meaning behind the words is often lost - to make inferences and deductions requires students to combine what they read with what they already know – for example students with dyslexia may be easier to apply this concept to an oral conversation. Therefore, instead we asked questions in relation to theme and the topic.

Table 5: Summary of key disability specific adaptations made to learning assessment tools

3.1.1.5 External Quality Assurance: Initial feedback on adapted learning assessments

External quality assurance from the Fund Manager (FM) raised a number of points for further consideration. The majority of comments and suggested amendments made by the external quality assurance team have been quickly actioned by the technical team and are reflected in the final versions of the tools to be piloted. These include suggestions to remove or modify the content of subtasks, including:

- Removing shapes from lower primary EGMA and geometry and fractions from upper primary EGMA;
- Including percentages, fractions, ratios and data skills for SeGMA;
- Graduating the difficulty of subtasks in the SeGRA and SeGMA

However, other comments and questions have been more contentious and involve further discussion or piloting. These include:

FM: By extending the timing rule in EGRA and EGMA from 60 to 180 seconds and removing the discontinuation rules, is this not unfair to children who may have to sit in silence unnecessarily for a long time? Might this lead to frustration?

Montrose's Response: The rationale behind extending timed subtasks from a 60-180 second restriction is to allow children to hear (and repeat) instructions, receive continual prompting and to account for slower processing speeds. Similarly, the reason behind removing the discontinuation rule is because students may take longer to 'warm up' to the assessment and become comfortable responding to the subtasks, and because some students may prefer to skip certain questions or answer questions from different parts of the subtask. We plan to test this out during the pilot to see how it works in real time and then make a final recommendation for rolling it out in the baseline. We will also mark during the pilot what students are able to do within the 1-minute and again at the 3-minute mark for each subtask. With that evidence we then plan to make a final conclusion about the timing and discontinuation rules before executing the baseline.

FM: If GwD have 180 seconds for oral reading and the general standard is 60 seconds, how will you calculate words per minute in a way that is meaningful and allows for comparison across Uganda and the wider GEC-T cohort?

Montrose's Response: In consultation with the FM, the following recommendation was made with regards to calculating WPM scores to compare results between reading for 60 or 180 seconds:

With the standard WPM passage, the key variables are a) words read correctly; b) seconds used to read the passage (counting up). The standard formula would be WPM = a(60/b). The key is the numerator is 60 seconds (i.e. words per one minute). A consideration is if variable b is seconds remaining (counting down), the formula would be now WPM = a*(60/(180 – b)).*

Additionally, however, reading comprehension scores are far more important than WPM scores in terms of reading achievement and should form an equitable part of the basis for comparison across students, language groups and projects. This is important not just for children with disabilities but for all children – especially those that read in local languages whose linguistic structures are not comparable to English and whose WPM score are therefore not comparable to English WPM scores. Moreover, reading comprehension is the main goal of reading; fluency scores do not indicate a child has processed, understood or retained what they have read. Although the two are interrelated, without comprehension the purpose of reading is lost. We would recommend further reflection on this by the FM and DFID and the inclusion of comprehension assessment comparisons across target groups, children and projects.

We also welcome further discussion on this important issue as a means of identifying targets and outcomes for children in the programme.

FM: Why have you suggested a shorter reading passage length than the guidance? Will this lead to ceiling effects?

Montrose's Response: The guidance was to create a story of 240 words, yet this cannot be read within the stipulated time of 60 seconds, even by most literate adults. In our experience dealing with passage length, the average length of a passage – even for upper primary pupils in mainstream schools – is 70-90 words on average. Even though we have considered a 3-minute stop rule for this group of pupils because of their disabilities, it is still important to not exceed a standard and appropriate passage length for this assessment. Additionally, the font sizes that the pupils will use on their stimuli to allow for children with varying disabilities to easily read the text will not allow for a story of that length, as it will require numerous sheets of paper to print 240 words, making the assessment unmanageable for the children. Finally, the disability experts on our modification panel suggested this length of story because of the challenges faced by the different disability groups regarding learner fatigue and frustration, which often come about because of reading a very long story. Our learners also face challenges recalling and remembering what they read – a situation compounded by a long text. We plan to pilot these tools to confirm these recommendations, the results of which will inform us regarding the appropriate length of story to use.

FM: Creating an upper and a lower version of the EGRA/EGMA may lead to difficulties in mapping individual learning curves and test consistency. We also need to be able to produce a single EGRA/EGMA literacy and numeracy score, and by having two versions with different content it may be hard to merge.

Montrose's Response: The idea behind this approach was to ensure appropriate scaffolding and progression in level of difficulty between similar and divergent subtasks, e.g. length of passages and complexity of vocabulary and other words. Additionally, some subtasks that are aligned with pre- and early reading and numeracy skills are inappropriate and/or unnecessary to assess in older learners. However, following consultations with the FM, we have created a merged version of each assessment geared towards a Primary 3-4 child. P1 and P2 children will not be excluded from the sample. We will pilot this version, as well as shorter passages for listening and reading comprehension, and confirm our approach to this before the baseline.

FM: It is important that pupils sit the *same* test throughout the evaluation for test consistency. If this is not appropriate for this cohort then how will you measure individual learning curves?

Montrose's Response: The initial premise was to administer the *appropriate* test for the grade reached by the child. So, if a girl starts in P4 she would take the lower primary EGRA/EGMA. If, at the following evaluation point, the girl has reached P5 she would take the upper EGRA/EGMA. If, by evaluation end, the girl has reached secondary level she would take the SeGRA/SeGMA. The rationale behind this was to ascertain whether children are performing at the expected level for their grade. Feedback from the FM suggests that to track improvement it is necessary to administer the *same* tests throughout, and the level should be graduated across different learning levels, which will indicate individual improvement. This means that any girl who may reach secondary education within the 7-years would be expected to take both the EGRA/EGMA and the SeGRA/SeGMA. The issues with this approach have been highlighted above- but in short it is not appropriate for students in lower primary to sit a secondary assessment they will be incapable of completing as it will lead to considerable test anxiety. In order to reconcile

approaches and ensure GwD are not given unnecessary tests that they will not be able to understand or perform in, the following approach will be taken:

- Girls in P1/P2 will be excluded from the study
- Girls in P3-P5 will only ever sit the EGRA/EGMA test
- Any girl in or above P6 will be asked to sit both the EGRA/EGMA test and the SeGRA/SeGMA test in full

This approach will be piloted prior to baseline to confirm the impact it has on students in our cohort.

3.1.1.6 Final Adapted Learning Assessment Tools to be Piloted

Taking into account all the learnings from the literature, adaptation workshop and external quality assurance, the learning assessments to be piloted and supporting disability manuals and marking schemes provided. Below is a summary by subtask.

Table 6: Final subtasks for the pilot learning assessment tools

Final Adapted Pilot Learning Assessments (subtasks)			
EGRA	**EGMA**	**SeGRA**	**SeGMA**
Letter Names & Sounds Non -word reading Familiar Words Segmenting Oral Reading Reading Comprehension Listening Comprehension	Number Identification Number Discrimination Missing Number Addition Subtraction Word Problems Multiplication Division	Reading Comprehension 1 Reading Comprehension 2 Writing Assessment *NB There will be 2 versions piloted* *Version A:* Open questions only *Version B:* Combination of open and closed questions	*Subtask 1:* Multiplication Division Percentages and Fractions Measurements *Subtask 2* Equations *Subtask 3* Charts and Data Word Problems
**Note that all learning assessments will be administered in English as a first choice of language. It is permitted for assessors to communicate instructions in any way that a child can understand. In this case the most likely language would be English or Luanda. Assessors will be fluent in both languages and care will be taken during assessor training to ensure consistent local language translation.* ***EGRA/EGMA is set to be taken by all students. P3-P5 students will only ever take EGRA/EGMA. P6+ students will take EGRA/EGMA and SeGRA/SeGMA*			

It is important to note that these learning assessments will be rigorously piloted, after which point they will be revised further. More detail on the piloting process can be found below.

3.1.2 Development of Additional Tools

A number of additional tools will be developed in order to capture nuanced information about disability, school environment (including teaching quality and approaches to inclusion in the classroom), attitudes and perceptions of beneficiaries themselves and other stakeholders, socio-economic status of beneficiaries' families.

The table below presents a summary of these tools and the domains that will be covered. The final versions of these tools will be developed after a joint workshop between CSU and Montrose to gather additional information about each intervention, and the expected outcome. This will facilitate the development of questions targeted to assess the efficacy of interventions on aspects such as life skills, self- esteem, teaching inclusivity, attitudes and perceptions.

Table 7: Additional Tools and Domains

Tool Required	Who is tool intended for?	Tool Domains
Pupil Interview Tool	Girls with disabilities Girls without disabilities Boys with disabilities	• Demographics • Disability type & severity • Socio-economic circumstances • Stigma/self -esteem/voice/ ambition/GBV • Life Skills • School facilities and teaching quality • Support given, barriers & facilitators to learning
Teacher Interview	Teachers of girls and boys with and without disabilities	• Demographics and experience • Language of instruction • Level of training and confidence • School & Learning Resources • Knowledge of grades and curriculum • Attitudes and Perception and inclusive teaching practices • Barriers to GEC
Headteacher interview	Headteacher of a school within CSU programme	• Demographics and experience • School policies and governance • School resources and facilities • Attitudes and Perception • Barriers to GEC • CSU interventions
Classroom Observation	Teachers of girls and boys with and without disabilities	• Learning environment • Teacher practices and behaviour (monitoring, assessing, textbook review, inclusion, behaviour) • Use of TLMs in lessons • Participation of students • Language of Instruction
School Checklist	School Observation	• Attendance • Transport Register • Facilities
Caregiver survey	Primary caregiver to girls & boys with disabilities	• CG Demographics • CG Level of Education and Occupation • Girl attendance/transition • Girl household composition, circumstances safety of area • Girl chores and household commitments • Girl Disability type & severity • Girl's school and Involvement (management, progress reports) • CG Attitude & Perceptions • CG view of CSU interventions and barriers/facilitators to learning
Household Survey	Parents/ household heads	• Demographics and household composition • Attitudes and perceptions • Economic & Resilience • HH view of CSU interventions and barriers/facilitators to learning
Education Authority KII tool	Ministry/education officials	• Attitudes and perceptions • Policies, budgets and governance • Barriers to GEC
Community attitudes tool	Members of Community	• Attitudes and perceptions

3.2 Identifying and Training the Assessors

3.2.1 Baseline

Assessor Identification

The baseline study will require a competent team of assessors who are able to communicate well with girls with and without disabilities, teachers, principals, caregivers and household members. They will also need to be aware of and adhere to strict child protection protocols. Montrose has experience identifying and training a pool of EGRA/EGMA assessors in Uganda. We will be looking to select assessors based on a number of key competencies such as:

- Ability to communicate well with children (including girls with disabilities)
- Ability to use assessment tools and materials (EGRA/EGMA an advantage)
- Experience of using a tablet
- Fluency in English and Luganda

Priority will be given to assessors who have been part of previous EGRA/EGMA assessments. We will thus build on the existing capacities of the assessors and supplement with additional assessors. For the final selection of assessors, we will develop an observation/evaluation checklist (with an inter-rater reliability (IRR) scoring system). The IRR measures the degree to which different assessors agree in their scoring of the same observation. IRR is used during the training process to improve the performance of the assessors before they go to the field. It will be used to help select the best-performing assessors in a fair and transparent manner.

Montrose's experience has found that on average 10% to 20% of the trained assessors from a training programme drop out due to other commitments, conflicts, illness or family issues, therefore we will train more assessors than we will need to conduct the assessment to make sure that we have qualified backup in case an assessor falls sick or does not perform well during the data collection. This also means that training is competitive as the trainees are aware not all of them will be deployed and will be tested for their individual competencies during the training. All criteria for selecting the successful assessors will be made transparent from the very beginning to ensure a fair selection process and to avoid conflict, misunderstanding and disappointment.

An additional team of disability experts will be selected and take part in the assessor training. Their role will be to provide ongoing support to teams in terms of disability sensitivities, and to be the advocate of the child during the learning assessments. They will also participate in household and caregiver data collection. They will be selected and recruited in close collaboration with CSU to ensure they have adequate hands-on experience of working with girls with disabilities.

Initial Training Objectives

The initial training course for assessors is designed to develop the knowledge and skills of assessors to equip them to undertake assessments of early grade learners in literacy and numeracy with a high level of fluency specifically:

- To understand and be able to fulfil the role of the assessor in the context in which they will be working
- To be fully conversant with each of the sub-tasks of the EGRA, EGMA, SeGRA, SeGMA assessments.
- To be fully conversant with corresponding disability adaptation manuals
- To be able to conduct the learning assessments with girls with disabilities so as to encourage their best performance, adhering at all times to the child protection policy
- To be adept at checking and capturing data electronically using the Tangerine software, at initial cleaning of data and at transmitting this data daily.

- To be confident and proficient in administering lesson observations, school management assessments, household and caregiver surveys and in making reliable rating judgements.

Training Materials

Comprehensive training materials will be developed, including: [31]

- An introduction to EGRA and EGMA
- EGRA and EGMA sub-tasks, practice in administering subtasks and the use of tablets
- An introduction to SeGRA and SeGMA
- SeGRA and SeGMA sub-tasks, practice in administering subtasks and the use of tablets
- Disability manuals for the administration of learning assessments for girls with disabilities
- Ensuring consistency and reliability ratings between assessors
- Introduction to the additional data collection tools (lesson observations, teacher interviews, school checklist, household and caregiver surveys)
- Practice in administering the additional tools, and use of tablets
- School based practice
- Research ethics and child protection
- School and household visit protocols.

Training Programme

An indicative training programme to meet the training objectives is presented below. It outlines the proposed topics and sequencing of learning.

[31] Where appropriate, training materials will be adapted from materials that were successfully utilised and field tested during previous EGRA/EGMA programmes in Uganda.

Figure 6: Assessor training agenda

Day 1 Topic: ***Introduction*** ***The study*** ***The role of assessers*** ***An overview of EGRA/EGMA***	•General introduction (GEC-T & CSU; organization etc) •Short overview education sector in Uganda for GWD, challenges and opportunities •The role of learning assessments (EGRA/EGMA/SeGRA/SeGMA), nationally and internationally–what has been done so far? What about GwD? •Children: reading, numeracy & how they learn in context of EGRA/EGMA/SEGRA/SEGMA •Overview of learning tools, corrections modalities , roles and responsibilities, how to conduct the assessments in the field •Disability and gender- a detailed look at cohort, explanation about disability adaptations
Day 2/3 Topic: Tablets & ***Getting to know EGRA/EGMA***	•How to approach GwD: creating a comfortable assessment atmosphere and child protection issues to be aware of when assessing learners •Research ethics •Introduction to the tablets •Detailed introduction to EGRA/EGMA subtasks - highlighting specifications, difficulties, disability adaptations •Detailed introduction to the EGRA/EGMA disability manual •Pre-testing (among participants) and scoring •Lessons learnt difficulties
Day 3/4 Topic: Tablets & ***Getting to know SeGRA/SeGMA***	•Detailed introduction to SeGRA/SeGMA subtasks - Highlighting specifications, difficulties, disability adaptations •Detailed introduction to the SeGRA/SeGMA disability manual •Pre-testing (among participants) and scoring •Lessons learnt difficulties •Introduction of trainee observation/assessment check-list •Detailed introduction to data management and student tracking
Day 5 Topic: Tablets & ***Teacher Performance and Classroom Observation***	•Detailed introduction into the teacher performance, classroom observation and school checklist tools •Detailed introduction to the pupil, teacher and headteacher interview tools •Detailed introduction to the household and caregiver survey tools •Mock interviews and data capture
Day 6 & 7,8,9 Topic: ***Field practice and piloting***	•Field Practice: Assessment in schools (in teams and individually), supervised •Trainers oberserves and gives feedback to individuals •Coding and sampling (student tracking) •Discussion of results •Lessons learnt of practice sessions •Feedback to each trainee by trainers, IRR results •**Pilot** Pilot data collection and feedback •Discussion of results •Final feedback on EGRA/EGMA/SeGRA/SeGMA instruments
Next Steps Topic: Tablets & ***Preparing for data collection***	•Groups allocation •Roles and responsibilities in the field •Data entry and common errors •Final briefing •Training Evaluation and Learning

The proposed training schedule foresees an in-depth training for EGRA/ EGMA/SeGRA/SeGMA for three full days and will be dedicated to fully familiarise and train the assessors on the instruments, the data entry on the tablets and the relevant disability-specific adaptations. Each subtask will be introduced and discussed in detail, identifying possible problems or questions that may arise.

Assessors who will conduct the lesson observation and teacher interviews will be trained in parallel and also do the field practice on day 6 of the training. All assessors will be trained in the correct administration of household and caregiver surveys.

Training will also cover research ethics and approaches for communicating with girls with disabilities.

Finally, after the groups are allocated, the roles and responsibilities within each team will be introduced and discussed, and also last briefings for the conduct of the assessments will be carried out.

Training Approach

The training approach above seeks to make use of the best practices for adult learning as outlined below:

- The purpose and direction of the training will be clearly described throughout the programme enabling trainees to direct their own learning and to master the skills required.
- The process of evaluation of trainees will be transparent and fair.
- Varied teaching and learning methodologies will be used including role-plays, team work, group work, individual work and presentations depending on the learning purpose. The methods will seek to ensure the maximum participation and practice of the participants.
- Daily review and evaluation as well as session reviews will be undertaken to ensure continuous and successful learning and progress.

Pre-testing exercises will be guided and observed by the trainers. This will enable assessors to be conversant with the tools through practice and to build their confidence in handling the instruments so that they are fluent when they use the tools with learners.

Assessors often rate the same observation differently, especially when they are exposed to the assessment situation for the first time. To circumvent this feature and to strengthen the reliability of this scoring a team-approach will be used. During the sessions, the assessors will observe each other, give each other feedback and discuss their scorings of the same observation. They will present these points in discussion with the whole group. This approach will lead to improved performance of the assessors and greater consistency in scoring.

At the end of each day the entire group will meet to discuss experiences, lessons learnt and report problems while administering the assessments. Possible findings and suggestions will be considered and the EGRA/EGMA/SeGRA/SeGMA instruments revised and adapted if required. The feedback of the trainee assessors will be used to adjust last errors or misunderstanding found in the tools, especially with regards to instructions.

The high-level interviews will be conducted by Montrose's gender and disability technical specialist Irene Among (who was present for some sessions of the ToC workshop). She will also be leading sections of the assessor training, with an emphasis on gender and disability. Irene is an ex DFID Uganda employee who is fully briefed on the project and has good relations within the KCCA and Ministry (CV could be made available upon request). Annex 5.3 contains the composition of the team and a brief summary of the individual roles for further clarity.

3.2.2 Midline and Endline

The process for midline and endline will follow much the same steps as outlined above for baseline, in terms of assessor identification, selection and training.

The aim is - wherever possible - to utilise the same assessors and disability experts at each evaluation point. Practically speaking this may present difficulties due to the fact that the project spans 7 years, but where possible this premise will be applied to ensure consistency. Where it is not possible, we will endeavour to pair assessors with baseline experience with fresh recruits so that the experienced assessors can help speed up the familiarisation and training process.

Before every evaluation point Montrose will run a full refresher training session that will be similar in content as the schedule for baseline training.

3.3 Piloting the Tools

3.3.1 Piloting Complexities and Sensitivities

The piloting process for this project is arguably more complex than other GEC-T projects. Firstly, it is necessary to pilot not only the basic *content* of the learning assessments but the *appropriateness* of adaptations for girls with different types of disabilities. This may yield a number of further revisions to the tools. Secondly, SeGRA/SeGMA have never been developed or tested before. Whilst the technical team has taken measures to ensure the appropriateness of the tests as far as possible (see section above on adaptations), it is conceivable that significant changes will need to be made post-pilot. Thirdly, there are different disabilities within the cohort, meaning that there are different versions and/or administration guidelines for each test (EGRA, EGMA, SeGRA and SeGMA) for 'hearing' 'visual' 'physical' and 'intellectual'. This, in turn, means that it will be necessary to carefully consider the number of pilot samples required in order to get the critical mass necessary for robust analysis within and between disability groups.

Finally, as a 7-year project with 4 separate evaluation points, it is necessary to develop 4 versions of each tool, calibrated to the same level of difficulty. Guidance from the fund manager outlines the need to test every version of every test with the same girl. That is to say, one child from the pilot cohort would be expected to sit EGRA/EGMA or SeGRA/SeGMA Baseline version, Midline 1 version, Midline 2 version and End-line version, at which point their results would be analysed to see whether they performed statistically significantly better or worse in some versions of the test than others.

There a number of issues with this approach:

- Firstly, this cohort of girls require extra time, in line with disability-related adaptations, meaning that the piloting time for one child would be very long
- Secondly, it will be necessary to come back on different days to administer the separate versions of the tools, to avoid overwhelming the girls and to allow them to perform equally well across test versions. This raises important issues around child protection, and whether it is fair or ethical to pull the same child out of the class on 5 separate occasions in quick succession
- Finally, and more broadly, this is not standard practice in a study of this nature. It is usual to calibrate difficulty across test versions via the external member of the Quality Assurance team (usually an education specialist)- who will use several sources to ensure consistency. This method is preferred as it reduces the likelihood of the tests being leaked or seen by members of study (pupils and teachers). It is also a robust methodology practiced by RTI (who developed

the original EGRA/EGMA tests). It is also a sensible approach for this project given that we are more concerned with the administration, setup, environmental, practical and directional aspects of the assessment to determine their appropriateness and applicability, rather than focusing exclusively on the alignment of subtasks for difficulty and version control. Given that the modifications are significant in scope and type due to the varying disabilities of children in the programme, it is not logical to create and pilot 4 versions of the same test if multiple revisions are then required.

The piloting approach outlined below attempts to reconcile the guidance from the fund manager and the sensitivities outlined above, and will be completed as follows:

3.3.2 Proposed Piloting Approach

The pilot version of the learning tools will be administered by 24 assessors (overseen by 8 disability specialists) to 84 pupils across a range of grades encompassing a range of disabilities (hearing, visual, intellectual, physical) between 5th and 7th March 2018. During this time, interviews will also be conducted with 21 pupils per disability type, 30 caregivers, 8 teachers and 8 headteachers. A survey will be conducted with 30 household members and 8 lesson observations will be carried out.

Table 8: Sample size distribution of the pilot study cohort (learning assessments tools)

Pilot Cohort: Learning Assessments				
	Physical	**Intellectual**	**Hearing**	**Visual**
EGRA/EGMA	14	14	14	14
SeGRA/SeGMA	7	7	7	7
Total Learning assessments 84	21	21	21	21

Table 9: Sample size distribution of the pilot study cohort (other tools)

Pilot Cohort: Other Tools	
Pupil Interview	21
Teacher Observation	8
Teacher Interview	8
Head Teacher Interview	8
Household Survey	30
Caregiver Survey	30
Total	**105**

The aim is to pilot tools on girls who are **not in** the overall CSU cohort. This means finding girls with hearing, visual, physical and intellectual disabilities in mainstream schools who are not part of the CSU GEC-T project. This will be carried out in close collaboration with the Ministry of Education and CSU. However, this approach may present challenges, as there are few girls with disabilities in mainstream schools in Kampala who are not receiving CSU interventions. Out of those we do find, it may be hard to get an equal or representative spread by disability type. It is also increasingly difficult to find disabled girls at secondary level. Therefore, if the planned approach does not work the project team will pilot girls within the CSU intervention schools but who have not been selected within the final sample.

During the pilot data collection, project team s will be observed and overseen by members of the project and technical team. All data will be collected and submitted electronically via tablets with the exception of the SEGRA/SEGMA which are written assessments. Analysis will be undertaken to examine tests for floor and ceiling effects.

Comprehensive feedback will be gathered from Assessors and Disability experts via an afternoon workshop each day. This feedback will help to determine whether the tools and existing adaptations are appropriate for GWD and user-friendly. It will also help to ascertain what further revisions are required. This feedback will be triangulated with technical analysis of pilot version test results in order to create the final tools for baseline, Midline 1 and 2, and endline. The subsequent versions of the learning tests (EGRA/EGMA/SeGRA/SeGMA version for midlines and endline) will then undergo quality assurance via an external education expert, and will be calibrated to ensure consistency in content difficulty between the different versions. They will then be piloted according to the guidelines below (i.e. certain subtasks will be piloted across all test versions - such as reading passage s- but other subtasks will not).

Piloting guidelines

In order to ensure minimum disruption of girl's education and to adhere to our child protection policy, we do not propose to pilot every version of every test (Baseline version; Midline 1 Version; Midline 2 Version and Endline Version). Instead we will pilot test versions as follows:

EGRA: The Baseline version will be tested in full. Midline and Endline versions to be piloted will only include oral reading, reading comprehension and listening comprehension subtasks. All other subtasks will be externally calibrated to ensure consistency in difficulty.

EGMA: The Baseline version will be tested in full. Midline and Endline versions will not be piloted but will externally calibrated to ensure consistency in difficulty.

SeGRA: The Baseline version will be tested in full. Midline and Endline versions will not be piloted but will externally calibrated to ensure consistency in difficulty.

SeGMA: The Baseline version will be tested in full. Midline and Endline versions will not be piloted but will externally calibrated to ensure consistency in difficulty.

We propose to maintain the premise that for all learning assessments, the same girl will pilot each version to ensure consistency.

3.3.3 Development of learning assessment tools for subsequent evaluation points

Due to the sensitives and complexities involved in adapting EGRA/EGMA/ SEGRA/SEGMA for GWDs (outlined in section 3.3.1), there is need to rigorously pilot, analyse results and collate feedback before finalising the content and level of difficulty within each learning assessment. After this point, subsequent versions of the assessments will be developed by the technical team leader and will be externally calibrated to ensure difficulty is consistent across all versions. Selected parts of the tests will also be piloted (by the same child) – again, to ensure consistency of performance across versions. Careful consideration will be made to ensure that this is done in a way that does not breach the child protection protocol.

3.4 Data Collection

3.4.1 Baseline

Data collection for the baseline study will be conducted between 3rd-20th April 2018. Data will be checked, cleaned and compiled as it is received.

Montrose will deploy 24 trained assessors and 8 disability exerts to schools across Kampala to undertake the EGRA, EGMA, SeGRA and SeGMA learning assessments, pupil, teacher, caregiver and household interviews and classroom observations in teams of four. Assessors will be divided by assessment type

and task. In each team there will be a senior assessor who will be responsible for undertaking the classroom observations and interviews, as well as for supervising overall data collection. There will be 2 assessors conducting the learning assessments and there will also be a disability expert to provide ongoing support to the team and to act as the child's advocate during the learning assessments.

All learning assessments will be conducted in the morning in order to give children the best opportunity to perform well. Household and caregiver interviews will be conducted during the afternoon.

EGRA, EGMA, SeGRA and SeGMA will be administered by the assessors in accordance with the sample size. Girls who are in P3-P5 at baseline will only ever sit the EGRA/EGMA tests through the evaluation. Girls in P6 or above will sit both the EGRA/EGMA and the SeGRA/SeGMA at all evaluation points. This means that some children will sit 2 tests. This is subject to pilot confirmation to see whether it is practical and appropriate.

Each pupil will complete at least 2 tests in addition to an interview, which can be daunting and tiring. They will likely need short breaks. Experience from previous projects demonstrates the need to ensure assessors undertake training exercises in how to gage whether a child is ready and able to undertake the assessment and they will also be selected on how well they can communicate with children. Criteria for this according to disability type have been identified.

Prior to piloting, it is unclear how long each assessment will take for GwD. Ordinarily, an EGRA or EGMA test should take no more than 15-20 minutes per learner. However, it is anticipated that these assessments will take significantly longer as the standard timings and auto stop rules for the subtasks have been extended. Additional time may also be required to adapt the environment, and it may take longer to communicate with some children.

The current working assumption is that the overall assessment should not take longer than 90 minutes per GwD and 30 minutes for girls without disabilities. A ten-minute period between each test will allow sufficient time for preparation and the change-over between pupils being tested. Each team should therefore be able to assess 8 GwD and 5 girls without disability per day (this assumption will be tested as part of the piloting process)

In every class where girls are sampled, a teacher interview and lesson observation will be carried out. In every school a headteacher interview will be conducted as well as a school observation checklist. For every child that is sampled, a representative from their household will be interviewed. For every GwD their primary caregiver will also be interviewed.

The teams will be supervised and monitored periodically by Montrose representatives to ensure high quality data will be collected. The MoEST will be invited to participate in the monitoring process in at least one school per district. The attendance and participation of Education Authorities during the data collection process is important to build their capacity and ensure future buy-in when working with GwD.

The quality of data collected is most critical in conducting the assessments. The team composition and the quality assurance as explained above will lead to improved monitoring and accountability of the EGRA/EGMA/SeGRA/SeGMA process. Additional monitoring via the GPS tracking on the tablets and data uploads will enable us to ensure that assessments have been carried out as planned, and to a high standard.

3.4.2 Midline and Endline

The specific dates for midline and endline have not yet been finalised. It is likely that data collection will happen around March/April at each evaluation point in order to ensure consistency. Midline 1 will take place in 2018/2019; Midline 2 will take place in 2022/23 and the endline will take place in 2024.

Data collection at midlines and endline will follow the same process as baseline and, where possible, the same teams of assessors will be used.

3.4.2.1 Value for Money (VfM)

Analysis of VfM will not take place at the baseline although the necessary preparations shall be done to ensure that the evaluation team captures the necessary information to enable VfM analysis at the subsequent evaluation points. This component is an integral part of the evaluation that provides development partners and governments information to use for improving the effectiveness and efficiency of their development spending.
There is no single measure of a "good" VfM – VfM is always used to compare among two or more approaches to meeting a development objective. A VfM analysis typically presents the alternative approaches as ratios of investments (costs) and returns (outcomes). The "best" approach is the alternative that has the most favourable relationship between costs and outcomes. **The 'best" approach may not– and is often not – the least costly**.

> ***Example: Two strategies for improving retention and transition in school for disabled students***
>
> ***Strategy A*** *provides support that averages 200 thousand UGX per student. From an evaluation study it is estimated that Strategy A results in students achieving one additional year of schooling (compared to having no support).*
>
> ***Strategy B*** *provides a wider range of support to disabled students and has an average cost of 450 thousand UGX per student. An evaluation of outcomes attributes an average of three years of additional schooling for a disabled student provided the intervention.*
>
> *In this case* ***Strategy B*** *– the more expensive strategy – has a higher VfM. While* ***Strategy A*** *yields one additional year of schooling for 200 thousand UGX, investing in Strategy B yields one year of additional schooling for 150 thousand UGX (450,000 UGX/3 years of additional schooling).*

3.4.2.2 Collecting data for VfM analysis

The VfM question

Calculating VfM requires information concerning the costs of providing the specific intervention as well as estimates of changes in outcomes that can be attributed to the intervention. Considerable care is necessary in order to measure outcomes in a manner that allows them to be attributed to the intervention.* Without results that can reasonably be attributed to the intervention no VfM can be calculated.

In order to make valid comparisons among potential alternative approaches or strategies, their costs must be measured in a similar manner. Project budget information is used to develop the cost side of the VfM proposition, **but the project budget is not equivalent to the "cost" side of the VfM estimate.** This is because the VfM question is forward rather than backward looking. While the budget describes what has been spent, a VfM estimate provides information regarding the expected costs and expected benefits if an intervention was provided to additional participants in the future.

Examples of VfM questions:

How many additional years of schooling (or additional points in numeracy/literacy) can we expect for every 1 million UGX in additional spending on tuition grants for disabled students?

How many additional years of schooling (or additional points in numeracy/literacy) can we expect for every 1 million UGX in additional spending on teacher training/sensitization?

How many additional years of schooling (or additional points in numeracy/literacy) can we expect for every 1 million UGX in additional spending on transport for disabled students?

To answer these types of questions requires developing an estimate of costs that are comparable across the alternatives being considered. To ensure comparability across alternatives it is necessary to calculate a **unit cost** of the intervention. The unit cost represents the annual required expenditure to provide the intervention to one additional participant.

While the project budget provides cost information, some line items in a project budget may not be relevant to calculating the unit cost. For example, project implementation may require expenditures related to developing project interventions like; training manuals, travel for meetings with funding partners, short term technical experts and other types of development costs. Depending on the type of intervention, some of these costs would not be directly relevant to providing the intervention in the future or expanding the number of participants.

The approach used to calculate unit cost comparable across alternative strategies is often referred to as **the ingredients method**. The ingredients list is combined with prices for each ingredient (often from the project budget) and assumptions about the number of participants and the useful life of technical and material inputs. The example illustrates the application of the ingredients method for a hypothetical intervention to improve outcomes for disabled students.

Example of capturing information for cost analysis

Cost analysis worksheet

INTERVETION /SUPPORT: Training Teachers in Enhanced Methodologies for working with visually impaired learners

DESCRIPTION: An initial 10 day workshop for an average of 20 teachers per workshop. Workshop is residential. Teachers are supplied with project developed handbook with methodology guidance and support. A two-day refresher course provided each year beginning in the second year.

INPUTS:

Personnel: 3 contracted trainer/experts for initial workshop - 15 days (preparation and delivery, 1 contracted trainer/expert for follow up (3 days preparation and delivery)

Facilities: District office (no cost)

Materials and Equipment: 2 teacher resource books per participant, 40 thousand UGX per participant stationary

Other: Travel for 20 participants, Accommodation for 20 participants (15 nights), 3 trainers (15 nights), 2 officials (15 nights), meals/refreshment for participants (25) for 10 days.

A copy of the cost analysis worksheet can be found in the annex of this report.

3.4.3 Data management plan

Below are various aspects in which Montrose shall manage various aspects of the data to be collected.

1) Data summary
   - **Data Description** - To meet the project objectives, a combination of quantitative and qualitative data will be collected. All quantitative data shall be collected using electronic tablets with the exception of the KIIs, parts of the Household and caregiver, GEC-T SeGRA and GEC-T SeGMA tools which are more quantitative or are hand written by the respondent. The electronic tablets shall be installed with Tangerine and Kobo software. All data collected shall be monitored by a data manager and errors rectified in real time if possible. Quantitative tools shall be accompanied by a report template that shall be submitted to Montrose upon completion of the interviews.
   - **Designated Archive** - The research data will be deposited with the digital repository of RTI for Tangerine software and to ensure that the research community has long-term access to the data.

2) Ethics and privacy
   - **Informed consent**: For this project, informed consent statements will be collected by the assessors from the parents of every disabled and non-disabled child to ensure child protection protocols are adhere to. These consent forms shall be stored with the evaluation team for records purposes. Consent from the parent shall be sought at the beginning of the study (baseline) but that of the child shall be sought before every round of assessment.

     Where applicable, the forms will not include language that would prohibit the data from being shared with the research community.

   - **Data Confidentiality** - all data collected shall be kept with the utmost confidentiality and be privy to the data analysist and designated members of the evaluation team.

   - ***Disclosure risk management***: The research will remove any direct identifiers in the data and assign a unique project ID to each study participant (GWD) which will also facilitate the linking of data sets. Once deposited, the data will undergo procedures to protect the confidentiality of individuals whose personal information may be part of archived data. These include: (1) rigorous review to assess disclosure risk, (2) modifying data if necessary to protect confidentiality, (3) limiting access to datasets in which risk of disclosure remains high, and (4) conduct consultation to manage disclosure risk.

     Montrose will assign a qualified data manager certified in disclosure risk management to act as steward for the data while they are being processed and analysed. The data will be processed and managed in a secure non-networked environment using virtual desktop technology.

3) Intellectual Property Rights
   - CSU and therefore, DfID shall hold the copyrights for the research data collected through this project. By depositing the data with the above stated repositories, data cannot be transferred without written permission from DfID to disseminate the data and to transform the data as necessary to protect respondent confidentiality, improve usefulness, and facilitate preservation.

4) Storage and Backup
    - Research has shown that multiple locally and geographically distributed copies of digital files are required to keep information safe. Accordingly, Montrose shall ensure that a master copy of all digital files (i.e., research data files, documentation, and other related files) is stored with the data manager and the evaluation team.

3.4.4 Cohort tracking plan

A cohort of girls shall be tracked at three/four points in time – for the Baseline, Midline (I and II as applicable) and Endline evaluations. By managing to maintain the same cohort, the evaluation will seek to improves the ability to demonstrate statistically significant outcomes. At the major transition points (from Primary seven to Senior one and senior four to senior five), the loss of non-treatment girls is expected and shall be mitigated using a replacement of like-for-like as much as is possible. Within the school, the school management shall be approached to provide names of non-treatment girls to participate in the study and assist the project get the necessary permission of their parents. This information shall be expected to be obtained at baseline and maintained throughout the course of the project unless otherwise.

Below are the steps that the evaluation team will take to ensure adherence to the GEC-T Cohort Guidance tracking.

1. Pre-fieldwork phase

Before going into the field, the evaluation team shall

a) Generate and use a unique girl ID that must be stated on survey and learning tests
These unique IDs shall be stated on all survey documentation relating to the girl (i.e. household survey, school survey, etc.) and the respective learning test so that each test and all survey information can be matched to a specific girl and her contact information. The unique IDs will be consistent across the different tools, and no girl/household will have two different IDs across different tools.

b) Train assessors on GEC-T-specific guidance including HHS and learning test administration, use of unique IDs, and coordinating girls and home in a joint sample.

Assessors will receive clear, interactive training on administering the household and school surveys, a clear replacement strategy, and conducting learning tests. They will be well-trained on household random sampling if applicable. Assessors should collect all the necessary contact information for each girl and link it to the unique ID on a sheet (or digitally if tablets are being used for enumeration).

The kind of contact information needed will be case-specific as all girls will be sampled at school level. At a bare minimum, contact information will include the girl's name, school address and name, household address (or GPS data / mobile phone number of parents/caregiver and or household head), her grade (if she is enrolled) and age, names of parents/caretaker and/or head teacher and the unique girl ID.

Thorough preparation and good data management practices will be employed to minimise the risk of failing to re-contact a girl at later evaluation points.

c) Preparing a replacement strategy for later evaluation points

Assessors shall receive clear training on the what procedure must be followed before a girl from Baseline is replaced with a substitute girl at later evaluation points. The cohort girls' household tracking will be done metaphorically as parents and caregivers shall be invited to meet with the assessors at the school to participate in the survey. The assessor will call back at least three times in case the household head and/or the caretaker is not present on the day of the assessment.

A consistent but random replacement method shall be followed and reasons for replacement recorded. These reasons may be obtained from teachers or the school administration and assist the project in tracking the causes of attrition in GWDs and or identify any bias towards their education. To minimize replacements, the assessors will contact school authorities in advance to confirm the attendance of the Headmaster and the cohort girls. At other data points the school will also be contacted to find out the attendance on non-disabled girls as explained in the preceding sections. If replacement cannot be avoided, the substitute girl should be from the same school, be from the same grade and class as the initial girl, and ideally be the same age. If there is no other eligible girl in the same classroom, the interviewer shall interview a girl of the same grade selected randomly from another classroom.

Assessors will make sure that each girl is clearly marked as either a successfully re-contacted girl from Baseline or as a substitute, hence a newly added girl at later evaluation points. Only girls who did the learning assessment at Baseline and can be prompted to do the learning test again at Midline can be labelled as re-contacted.

2. Fieldwork phase

a) Using the sampling framework and sampling approach to select the correct sample
The signed-off sampling framework agreed between the project and Montrose shall be used to select schools from which to sample cohort girls. Appropriate methods to randomly sample eligible beneficiaries to reach the agreed sample size will be employed. Assessors will capture all data necessary to re-contact the girl or boy at later evaluation points. To do this, assessors will have a tool to match unique IDs, learning and transition data and contact information, and will received interactive training on the use of survey tools and learning assessments.

b) Follow tracking guidance and one-for-one replacement policy (for Midline and later evaluation points)
Tracking the same girls that will be surveyed at Baseline will be the highest priority and this importance will be clearly communicated to all assessors involved in the survey. This will apply to both disabled and non-disabled (control) girls. In the event that a girl is not re-contactable, the project will follow a one-for-one replacement strategy. This will result in replacing a cohort girl from Baseline with a substitute girl while in the field at Midline.

c) Ongoing monitoring of attrition in the field and assessor checks
The one-for-one replacement policy at Midline should help to maintain the overall minimum sample size as per the M&E framework or that was attained at Baseline. There might, however, still be cases where reduction in sample size cannot be controlled for limiting the project's ability to demonstrate an effect on the treatment group with a certain level of statistical precision.

Attrition rates will be monitored and reported in real time resulting in a daily check of attrition incidences and adjusting the sampling approach, if necessary. These observed attrition rates will

be checked against the initial rates that will be anticipated before the start of the Baseline fieldwork. Major deviations from the anticipated rates shall be communicated to CSU and the Fund Manager immediately to discuss implications and mitigation strategies.

3. **Post-fieldwork phase**
Once fieldwork is completed, a process of data cleaning will be conducted by the Data Manager. Since most data capturing will be via an electronic tablet, data-entry will be minimised greatly. A consistent data capturing strategy will ensure that Baseline data is merged with Midline and later evaluation point data.

a) Do quality and consistency data checks
Quality checks of the baseline data will be undertaken by the data manager in real time. Once again, the nature of data capturing employed will mean that this will be possible. quality checks of the Baseline data. The procedure of any transformations or edits performed on raw data (e.g. removing outliers, etc.) will be documented and provided alongside submitted data.

b) Label variables consistently, include sub-tasks of learning tests
All variables will be clearly labelled, and key variables expounded with definitions, units of measurement and any transformations performed on the variable. All sub-tasks of the learning assessments used and all variables that will be used to calculate the aggregate score in the data-set will be included in submitted reports.

3.5 Data Cleaning, Analysis and Reporting

3.5.1 Data Entry and Cleaning

Assessors will collect learning assessment, household, lesson observation, pupil and teacher interviews data directly onto tablets.[32] The data will then be uploaded every evening, once teams can connect to the internet. Montrose will then review the uploaded data to ensure consistency with the detailed field report and to ensure that assessments are not missing. In case of any inconsistencies, teams will be required to provide a valid explanation, to repeat assessments or to return to schools to complete any missing assessments. At the end of the data collection process once all the data has been uploaded, it will be reviewed again as a whole before data analysis can take place.

Free text data (e.g. in the teacher interview and observations), along with qualitative data gathered from focus group discussions and KIIs with Education Authorities will be analysed using the following qualitative data analysis methods that will allow the assessor s to identify common patterns and themes:

- Eyeballing and pawing (also called “ocular scan” method)
- Word repetitions
- Disaggregated analysis (where possible) against any measurable inputs from the lesson observation
- Coding of common responses to allow for comparisons across target groups and schools

[32] It may be necessary to use paper tools for SEGRA due to the written components. In these cases the paper results will be collected daily and marked separately by an education expert, using the marking schemes provided

Assessors will be working to a strict data management plan in order to ensure data can be linked effectively during analysis. This involves the use of unique pupil and school ID numbers that will then be replicated on all household and caregiver interviews. This will be explored more thoroughly in the data management and cohort tracking plan.

3.5.2 Data Analysis and Reporting

The analysis and interpretation of the data should respond to the scope of work as defined and shaped during the inception period. Results of interest include such questions as the average correct words per minute (WPM), broken down by disability type, grade or other factors for EGRA. These results also allow for comparability to other GEC-T projects where this is appropriate.

The reporting usually indicates the skills level of the student in each of the subtasks administered. In addition, a composite score will be produced in order to assess overall literacy and numeracy for primary and secondary GWD.

This WPM and the composite score will be analysed against factors such as school, socio-economic status, attendance, self-esteem and attitudes and perceptions to assess whether there are significant trends in learning outcomes along these variables. At baseline, this analysis will help to counter or verify some of the assumptions underpinning interventions. For example, if we find girls with better life skills perform significantly better, we will work with CSU to see whether it is possible to build on existing interventions in this area. It may also highlight some additional barriers or opportunities. To conduct this analysis requires the use of data triangulation between different qualitative and quantitative data sources, which will be facilitated by the data management and tracking plan.

After the baseline analysis, the results will be compiled in a draft Baseline Assessment Report. The standard reporting structure will be discussed and modified during this inception period.

At midline and endline evaluation, results will also be disaggregated by different intervention types in order to assess impact, and to see whether certain interventions look to have more or less of an impact against learning outcomes. This will also help to enable the Value for Money (VfM) analysis, which will also be conducted at midline and endline.

4. OTHER ASPECTS OF THE EVALUATION STUDY

4.1 The evaluation of boys supported by GEC-T

The GEC is designed to provide girls with an opportunity to transform their lives through access to quality education, acknowledging that gender inequality can be a driver for the challenges faced by millions of school-aged girls**.** Many barriers to education in Kampala are universal, such as a lack of schools and poorly skilled teachers. However, other barriers apply specifically to girls. In order for girls' learning to improve, these gender-specific barriers must be understood. The evaluation will seek to build on learning from GEC- 1 by collecting evidence to support understanding around barriers to girls' education. A key part of this will be the consideration of girls within their *wider context* which of course includes boys and men-both with and without disabilities. Without this analysis there is a risk that gender inequality is not reduced.

CSU and Montrose have taken steps to ensure boys and men are included in programme design and evaluation the following 2 ways (please see the GESI for more detail)

1) **Reduction in gender inequality: boys and men as change agents within the community, school and system**

In Uganda, much like the rest of sub -Saharan Africa, girls' learning outcomes are not yet matched with boys. There are significant inequalities between boys and girls' attendance and transition rate through school. The 2014, Ministry of Education and Sports EMIS statistics show that the survival rate at class 7 for girls is 32.9% as compared to 33.1% for boy; numeracy rate at class 6 for girls is 37.4% as compared to 45.8% for boys; primary Leaving Examination index for girls is 54% as compared to 60% for boys. At secondary school level, while transition to S1 is 70.5% for both boys and girls, the completion rate at S.4 (lower secondary) for girls is 34% as compared to 45% for boys; transition rate to S5 (Upper secondary) is 25 % for girls as compared to 33.6% for boys; Uganda Certificate of Education Performance Index for girls is 39.7% as compared to 44.5% for boys.

Disabled girls in Uganda are disproportionately represented in education as they face double marginalisation as a result of having a disability and being of a female gender. For example, between 2005 and 2013, the average annual enrolment in education of disabled boys in primary schools in Uganda was 2.6% while that of girls was 2.3% (EMIS, MOES 2014). Disabled girls are more likely to drop out of school compared to disabled boys and non-disabled peers. The few who continue with education are less likely to register good grades or learning outcomes due to failure by the education system to respond to their education needs.

Inequalities between girls and boys affect their educational opportunities and outcomes at every level. Many of these inequalities are driven by traditional expectations and norms and negative attitudes towards girls' education. These can determine whether girls get access to the classroom in the first place, limit the time they have available for learning, undermine the confidence they have in certain subjects, and the degree to which they participate in lessons, and ultimately shape their future aspirations. They also influence the perceived value of girls' education among others. As girls get older, the gendered norms become more pronounced and the opportunities they have to learn often reduce. Girls may be expected instead to get married, have children, take on greater caring and domestic responsibilities, and contribute to family income (see current situational analysis in GESI). Gender disparity in education is quite noticeable as families are still more reluctant to send their disabled daughters to school

Therefore, a key aim of CSU's project interventions is to (a) reduce negative attitudes towards GWD accessing education (currently embedded in cultural norms) and (b) work towards creating an inclusive environment that is supportive to the needs of GWD.

CSU will achieve this by increasing awareness about the benefits of GWD's education across multiple socio-economic levels within the community, school and system. Interventions range from targeted sensitisation, capacity building and inclusive education sessions to broader advocacy work and child protection activities. Much of the current literature provides evidence that suggests leading gender change through men is crucial to create transformative and sustainable change, so a key part of CSU's strategy includes reaching out to men and boys with interventions designed to provide sensitisation around disability and the value and benefits (including the VfM) of educating disabled girls. Fathers (and mothers) will be supported to improve their income and budgetary management whilst being exposed to the benefits of GWD's education. Boys with and without disabilities will benefit from project

interventions (see section below). Education actors will be trained around the value of inclusive education and how they can facilitate IE in practice.

At the evaluation level, therefore, it will be very important to measure the impact of these interventions in terms of how far they have achieved a reduction in negative attitudes and created a supportive environment. Knowledge, attitudes and perceptions around girls'/ GWD's education, inclusive education and child protection, will be measured at school, community and system level, along with policies and practices. Results will be disaggregated by sex so that it is possible to determine whether the attitudes of men/boys have improved over the project life cycle, and the extent to which fathers, male teachers/headteachers and male representatives within the Education Authorities are working to create and maintain a supportive environment for GWD to attend and remain in school.

The evaluation will continue to examine the inequalities (and the reduction in inequalities) between boys and girls- both with and without disabilities. This will take place at multiple levels, including learning transition, attendance, teaching quality (and inclusivity) and attitudes and perception. Please see below for more detail.

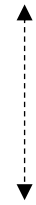
2) Improving learning and transition outcomes for boys: boys as direct and indirect beneficiaries

Whilst it is recognised that GWD face double discrimination, there is no doubt that boys with disabilities also face prejudice in Uganda. DFID is working to reach the Sustainable Development Goals (SDGs) by 2030, and SDG 4 specifically notes 'inclusive and quality education for all and promote lifelong learning'. This emphasis on inclusion for all is mirrored in the various policies, legislations and programmes introduced or supported by the Government of Uganda. In particular, the policy emphasis on special and inclusive education show that the government is keen to see disabled children, both boys and girls succeed in education.

This emphasis on inclusion for all, coupled with learning from GEC-1 where negative backlash was experienced as a result of boys being excluded, led CSU to include boys with disabilities into project interventions.

Boys will benefit directly and indirectly via CSU interventions. Direct cost support (school fees, scholastic materials) will be provided to around 500 boys with disabilities. It is also expected that emphasis on school facilities and improving teaching quality and inclusivity will also have a wider positive impact on boys (with and without disabilities) within intervention schools.

The evaluation does not seek to sample and track the 500 boys with disabilities in the same way as girls. Rather, it aims to use qualitative research to do some deep dives into the specific barriers that boys with disabilities face, and how these are related (or not) to the barriers faced by GWD. Focus group discussions will be held with BWD and their families to draw some of these issues out, whilst also seeking to gain information around the impact CSU support has had on their learning and transition. This will be triangulated against a small sample of BWD with whom we will conduct learning assessments (EGRA/EGMA/SERA/SEGMA).

Outcome/ Intermediate outcomes	Summary Overview: How will the evaluation look at men and boys?	
Learning	A small number of boys with disabilities will be tested at each evaluation point (EGRA/EGMA/ SEGRA/SEGMA). Results will not be statistically significant but will be indicative, and we will use these to draw comparisons between girls and boys with disabilities to see whether there is a significant difference in learning outcomes	 *Qualitative research will look at specific barriers facing BWD, and the impact that CSU interventions have had on learning and transition outcomes* 
Transition	A small number of boys with disabilities will be tracked for transition pathways and compared against girls with disabilities. The aim is also to use school/district level data to track transition rates across boys and girls more broadly to see whether there is a difference between boys and girls (with and without disabilities)	
Attendance	A small number of boys with disabilities will be tracked for attendance and compared against girls with disabilities Qualitative research will gather information around the barriers to boys with disabilities' attendance and transition	
Teaching Quality	Teachers will be assessed during lesson observations via the gender component of the inclusivity checklist (see lesson observation tool), and this will be monitored across the project to detect change. Girls will also be asked whether teachers treat them fairly as compared to boys, and this will be monitored throughout the life cycle of the project	
Attitudes and perceptions	Girls will be asked whether they are treated fairly as compared to boys at the community, home and school level. Households, caregivers, teachers and education authorities will be given KAP surveys and questions designed to understand attitudes towards girls (versus boys) education, career pathways, household responsibilities and life chances.	

4.2 Quality Assurance

We plan to collect the baseline and high frequency data using tablets. By using tablets, this will help ensure that we minimise data entry error. For example, the data entry template programmed into the tablets will have pre-programmed skip patterns and prompts to ensure high quality, consistent data. In addition, the tablets will allow us to pre-program the modifications for the assessments so that these cannot be influenced by the assessor during the survey.

The data from these tablets will be periodically downloaded on a daily and weekly basis and evaluated by the project team for systematic errors in data collection or survey administration. If errors are found, the project team will work with the assessors to correct the errors and consistently follow up with them to ensure that the problems have been fixed. Additionally, a assessor team supervisor should aim to observe each assessor interviewing a student at baseline, but should be careful to make sure that his/her presence does not make the child feel uncomfortable.

The survey instrument instructions will be translated and back translated to ensure that questions are asked correctly and assessors given adequate support for communicating instructions and directions in the local language. For the qualitative data collected, the answers will be analyzed by two different individuals to ensure consistency in interpretation. Similarly, the translations will be checked by two individuals for consistency in interpretation.

4.3 Research Ethics

We expect no physical, psychological, social or legal risks to respondents. The main risk is of a breach of confidentiality. This risk will be mitigated by storing all identifiable data securely using encrypted, password-protected files, and by anonymizing data (removing participant names) prior to analysis. If at any point monitoring shows any potential harm to participants as a result of participation in the study, we will consult immediately with CSU on further measures, including potentially halting the study. As noted above, we have no reason to believe that there are any risks to our participants.

Additionally, one of the main priorities for the assessors, prior to beginning the survey, will be to ensure that they conduct the survey in a private, closed space where the respondent feels comfortable answering questions away from any other individuals. Respondents who want to skip questions or withdraw from further participation may do so at any time.

The study is designed to protect confidentiality of subjects. However, it is necessary to follow individuals over time, so we will assign each participant a unique data identifier that will be used throughout the study to establish a link between the name of the individual and their data. Information from the coversheets will include names and identifying information. That information will be saved separately and securely and will not be linked during data entry. All computers that contain project data will be password protected and stored in secure locations.

The project will implement appropriate steps to adequately protect human subjects against potential breaches in confidentiality. The protection of respondents in this project will follow established procedures such as using a respondent's name only during data collection and separating the identifying information from the response immediately after the interview so that individuals cannot be matched with their responses. We will protect subject privacy by storing all identifiable data in encrypted form with password controls. Other than names and contact information, no sensitive information will be gathered. Hard copy data will be stored at the Montrose offices in Kampala in a locked room. Soft copy data will be stored on an online server that is encrypted and password protected. The office has security including guards and a gate.

A designated member of the senior Montrose team will be responsible for data security and only the assessors and Montrose staff will have access to respondent information. The paper forms containing the data will be destroyed three years after the completion of the study, while the electronic records will be anonymized and stored in a research data repository. Data entry will take place inside the locked room under the oversight of Montrose and additional data entry specialists. Data capturers will work on Montrose-owned computers, with data files being collected and stored securely in encrypted format at the end of each day of data entry.

4.4 Child Protection

This project will take steps to ensure that (a) respondents are informed of and understand the overall structure of the project, all its components, and the risks and benefits of participating prior to enrolling, (b) respondents are informed and understand the nature of each part of the study in the component's immediate temporal context, and have the opportunity at that time to decide whether they want to participate further, and (c) respondents who enroll are informed and understand that they may withdraw from the project at any time and without giving a reason. For these reasons, informed consent

will be sought from respondents at enrollment as well as the various stages of the data collection process, and respondents will be informed of their right to withdraw from the study at any time by simply notifying the interviewers or contact people listed on the consent form.

Adult participants will be given an informed consent form to read and sign. Minors will be included in the study, namely children in the selected schools. This is necessary because the goal of the study is to measure the effect of the CSU program on the literacy and numeracy abilities of these children. Parents of the children in the selected schools will all sign a consent form for their children to participate in the study, either through random selection for skills assessments or through learning environment observations. Parents who are illiterate will have the form read and explained to them. The consent form will be written in English and translated into Luganda before use; the consent will be conducted in either English or Luganda. Completed consents will be stored at the Montrose offices in Kampala, near the schools included in the study. Children will be asked a series of questions prior to the survey to gain their consent and agreement to continue. Children who decline to participate will be replaced in the sample.

All assessors will be briefed on the survey's child protection policy and sign a document indicating their compliance with child protection approaches throughout the survey. They will be monitored to ensure compliance with the child protection guidelines. Assessors found to be in breach of the policy will immediately be removed and bared from participating in further studies.

5. ANNEX

5.1 Cost analysis worksheet for VfM data collection

INTERVETION /SUPPORT:

DESCRIPTION:

INPUTS:

Personnel:

Facilities:

Materials and Equipment:

Other:

5.2 Project Workplan

	November				December				January					February			
Activity	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26
Phase 1: Team development																	
CSU and GEC-T Document Review																	
Technical team identification, recruitment and contracting																	
Phase 2: Adaptation Workshop and inception report																	
Identification of PWD experts incl. drafting of workshop agenda																	
Organise logistics and printing for workshop																	
Adaptation Worskshop					8												
Phase 3: Pre Baseline Activities & Inception																	
Development of EGRA/EGMA/SEGRA/SEGMA tools developped																	
Submission of EGRA/EGMA/SEGRA/SEGMA tools						15											
Feedback from Fund Manager on submitted tools										12							
Submission of final tools to CSU													29				
Drafting of Inception Report and QA																	
Submission of draft inception report to CSU and FM											19						
Reciept of feedback from CSU and FM														6			
Deliverable 1: Submission of final inception report															15		
Submission of invoice for deliverable 1																	

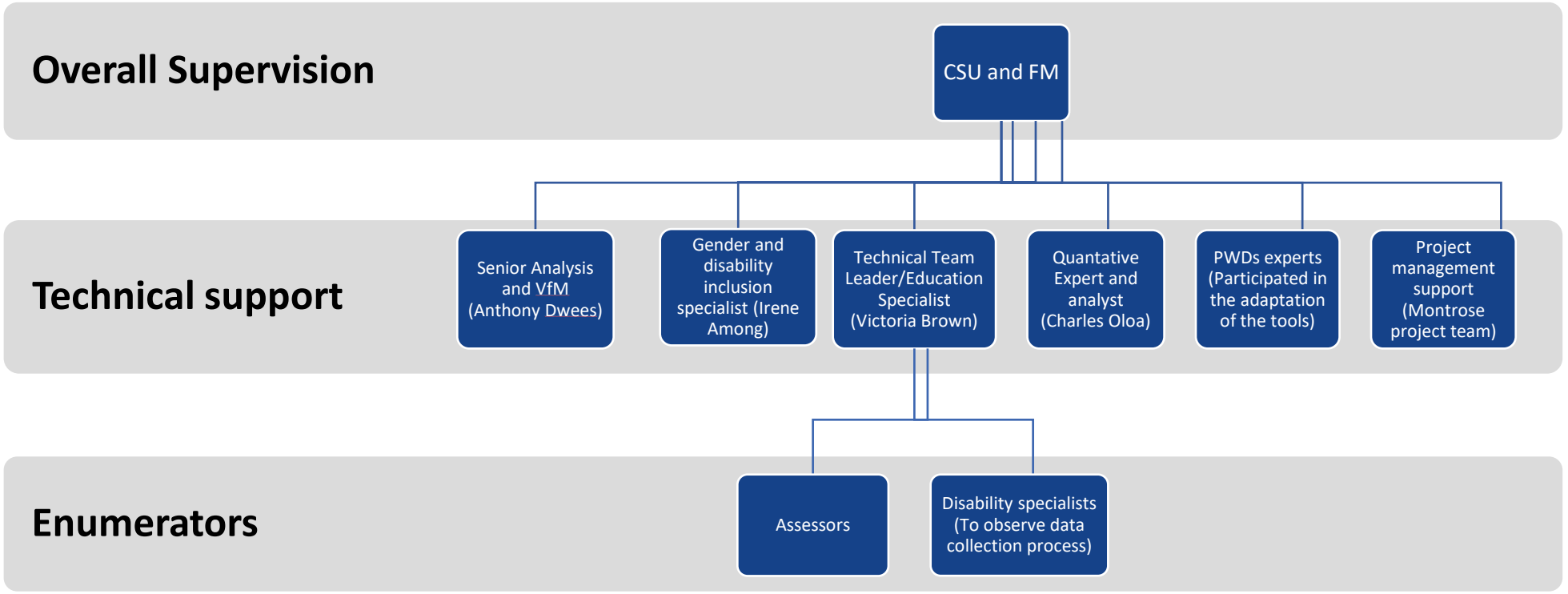
	January					February				March				April					May					June			
Activity	1	8	15	22	29	5	12	19	26	5	12	19	26	2	9	16	23	30	7	14	21	28	28	4	11	18	25
Phase 4: Assessor Training & pilot data collection																											
Identify and recruit assessors & support staff																											
Draft training agenda and finalise plan for pilot data collectin incl. selection of pilot schools																											
Logistics and travel plans for pilot data collection																											
Assessor training									26																		
Pilot Data Collection										5																	
Data analysis of pilot study findings																											
Drafting pilot study report																											
Submission of draft pilot study report to CSU and revised tools												19															
Receipt of feedback from FM on Pilot report												23															
Submission of final pilot study report and revised tools																											
Phase 5: Baseline Data Collection																											
Brief assessors prior to deployment																											
Baseline school assessments and KII (data collection exercise)																											
Data cleaning, coding and merging																											
Data analysis and writing of draft baseline report																											
Report writing and QA																											
Submission of draft baseline report to CSU and FM																							31				

	February				March				April					May					June			
Activity	**5**	**12**	**19**	**26**	**5**	**12**	**19**	**26**	**2**	**9**	**16**	**23**	**30**	**7**	**14**	**21**	**28**	**28**	**4**	**11**	**18**	**25**
Receipt of feedback from FM on draft baseline report																			7			
Revisions to baseline report																						
Deliverable 2: Submission of final baseline report to CSU and FM																				**15**		
Submission of invoice for deliverable 2 as per contract																					18	

2018 School Calendar for Uganda[33]		
Term	Start Date	End date
Term 1	5 Feb 2018	4 May 2018
Term 1 Holidays	5 May 2018	27 May 2018
Term 2	28 May 2018	24 Aug 2018
Term 2 Holidays	25 Aug 2018	16 Sep 2018
Term 3	17 Sep 2018	7 Dec 2018
Term 3 Holidays	8 Dec 2018	3 Feb 2019

[33] https://publicholidays.ug/school-holidays/2018-dates/

5.3 Team Structure



5.4 Justification for using a control rather than a benchmarking approach

5.4.1 Limitations associated with the benchmarking approach

Key to our evaluation is being able to attribute our findings to the interventions implemented by CSU. However, a one-off measurement of girls without disabilities will not allow us to do so, since, after seven years - at the end of the project - a great deal may have changed such as different school management, teachers, support, policy, governance, curriculum etc. - which will prevent us from attributing the changes to CSU interventions and severely reduces the integrity and comparability of the results especially at midline 1, midline 2 and endline.

Therefore, Montrose feel that creating a benchmark from girls without disabilities as a one off will not provide a meaningful way to compare progression of learning for GWD. It is difficult to compare girls with and without disabilities as a one off (without looking at their progression also)- and will not allow for a robust Difference in Differences (DID) comparison. In addition, it will not enable CSU to determine progression in learning outcomes from the GWD in the sample.

“Growth” in disabled girls’ literacy/numeracy is dependent on an almost limitless school and non-school factors. When only a one-off benchmark of girls without disabilities is followed, problems arise with obtaining a precise ‘growth’ measurement in the literacy and numeracy of GWDs outcome which would have happened regardless of programme interventions. Montrose thus proposes to address these issues by measuring how CSU’s interventions closed the outcome gap between disabled and non-disabled girls in the same class.

5.4.2 Our suggested revised approach

For a true DID approach we would need a control group of non-intervention GWD but this has been ruled out on the grounds of feasibility. The CSU approach of benchmarking suggests a DID between disabled and non-disabled girls to see whether the inequality gap changes at different evaluation points. We are suggesting that we maintain a look at the inequality gap change between girls with and without disabilities, but rather than a one-off benchmark we follow the same girls without disabilities also and assess the gap at each stage. By assessing the inequality gap at every point, we are not departing from CSU’s benchmarking approach per se, instead we are ‘benchmarking’ at every evaluation point to ensure more integrity of comparability which benchmarking only once will not allow.

In our suggested approach we would compare the disabled/non-disabled inequality gap over time in intervention schools only. It would still be a DID approach, but it would be comparing disabled and non-disabled students rather than disabled students with intervention and disabled students without intervention. We would not have the "counterfactual" of non-intervention - but we would have a baseline measure of learning outcomes and inequality gap prior to intervention (at baseline). The only assumption necessary to "attribute" the change in gap to the intervention would be the assumption that the intervention wasn't making non-disabled students less capable. The other factor that couldn't be ruled out was that the interventions were positively (or negatively) impacting disabled and non-disabled students equally. Analysis could provide an implicit estimate of impact of treatment v no treatment among disabled girls if we find that impact of interventions is "dose" dependent - more intensive support results in bigger changes.

5.4.3 Attribution, contamination and Value-for-Money (VfM)

It is necessary to reiterate that the Montrose approach directly aims to measure the intended outcomes of the project. Therefore, Montrose is committed to measuring whether CSU *interventions*

reduce the outcome gap in literacy and numeracy between disabled and non-disabled students. This is a specific outcome of the overall project and therefore a specific measurable of the Montrose evaluation. In measuring whether CSU interventions have successfully closed learning outcome gaps between girls with and without disabilities, we therefore cannot avoid assessing the impact CSU interventions have had on girls without disabilities. The anticipated 'contamination' effect that follows the likelihood that some CSU interventions, such as improved teaching practices, may benefit all girls, will enable us to show the added value when carrying out the VfM assessment.

It is important to note that there would likely be contamination in any control group as there are so few schools in Kampala city who are not supported in some way through religious organisations, community groups, NGOs etc. Our proposed method almost controls for contamination as – by targeting the same intervention schools - we are aware of what contamination is being applied across both treatment and control groups.

Without a proper control (i.e. PWDs in a school receiving no interventions) it was always going to be difficult to analyse the impact of specific interventions, due to the school/non-school factors at play. The assumption is that, even without any interventions, girls will progress and, due to the other factors at play, it will always be a challenge to ascertain the added value of CSU interventions.

This "attribution(able)" is key – without it the outcome can't say much/anything about the effectiveness or VfM for the project initiatives.

We don't think the proposal is to measure changes in students learning outcomes – but rather how these particular interventions closed the outcome gap (disabled /non-disabled). This is reflected in the project's proposed "benchmark" strategy. However, the notion of "contamination" was central to that strategy. If the interventions are meant to close outcome gaps, it is not necessary to attempt to avoid this "contamination". In fact, a case could be made that we would explicitly want to assess whether the interventions closed outcome gaps in targeted schools and so there is no need to measure in non-participating schools. This simplifies sampling and the logistics of data collection.

In this way:
Interventions will reduce the outcome gap in literacy and numeracy between disabled and non-disabled students by 0.25 SD (original measured at baseline).

In addition, a criterion of the sampling methodology will ensure that we look at girls receiving different 'baskets' of interventions: some may only be receiving cost support & some life skills training whilst others may be receiving all activities (with their parents/ families engaging also). This will enable us to look in more detail at the effectiveness of different interventions against learning/transition outcomes.

5.5 GESI Situational Analysis and Evaluation Approach

5.5.1 Introduction

Addressing the specific barriers to education which girls face requires acknowledging the gender inequality that leads to girls' education marginalisation. To fully understand gender inequality an explicit analysis of the social context in which girls are situated in is necessary. This will illustrate the different norms and power structures that are responsible for the discriminatory gender practices and lower value placed on girls' education. Understanding the effects of these gendered barriers on girls' access to education is conducted through a gender analysis.

The gender analysis is also a vital component of the GEC Minimum Standards around Gender Equality and Social Inclusion (GESI). It is essential for both a robust Theory of Change, and also to enable projects to anticipate the impacts specific interventions will have on gender roles and norms. The findings from the gender analysis help to inform, refine, and complete the Theory of Change, project logframe and MEL framework of GEC-T projects.

Accordingly, CSU has conducted a gender analysis (see here) and this has been used to underpin programme activities and the Theory of Change. In improving the life chances for girls and women with disabilities in Uganda, CSU aims to produce a supportive environment for GWD's learning and transition. Specifically, this involves reducing the negative attitudes towards girls in accessing education and creating an inclusive school, household, policy and system environment. The CSU gender analysis document, therefore, is designed to examine the current situation and how the evaluation will be conducted in a gender and disability sensitive way.

5.5.2 Overarching Concepts

The evaluation will be conducted in accordance with the following overarching concepts

- Monitoring and evaluation processes will include and differentiate girls from a variety of sub groups, including those with disabilities, from the start of the project. This data will track girls' experiences and whether interventions are responding to their needs.
- CSU will roll out a retention strategy, capturing the reasons for girls' drop-out from school whilst providing appropriate support to re-engage girls via appropriate interventions. The evaluation will support this retention strategy by tracking the same girls and their families throughout the 7 years (see data management and tracking plan). The evaluation will seek to ask qualitative questions around the barriers to attendance and retention of girls, feeding this back into the overall learning process.

- The evaluation will be conducted within a 'do no harm' framework, adhering at all times to CSU's Child Protection Policy. Some girls within the project have disabilities and thus face double discrimination. Therefore, all evaluation activities and corresponding risks will be rigorously informed by a gender equality and social inclusion lens. [34]
- Sex, age and disability disaggregated data will be collected and analysed at baseline, midline and endline. Disability data will differentiate between the type and severity of disability of beneficiaries, noting, however, that there are sensitivities around comparing different types of disabilities as it is not always possible to make meaningful or generalisable comparisons across disability groups.
- The evaluation team is resourced with staff, partners and contractors who have appropriate gender and social inclusion expertise.
- Lesson learning and sharing of best practice, along with the evaluation data, will capture achievement towards gender equitable and transformative outcomes and the inclusion and participation in planning, implementation and M&E of people with disabilities.

5.5.3 GESI and Evaluation Framework

Current Situation		Evaluation approach
Individual/ Household/ Community Attitudes, Beliefs and Norms	Uganda is a patriarchal society which favours boys over girls in most aspects of life. This is reflected in the **socio-cultural norms and practices** that contribute to **girls' ability to enrol, stay and perform in school.** Men are expected to fulfil prominent positions in society compared to women, so **more resources are provided for the boys education**, whilst, girls' education is not seen as a necessity to getting married and raising a family.	Knowledge, attitudes and practices towards girls, GWD, GWD's prospects and education, Inclusive Education, Child Protection will be measured at all levels (school, system, community) via KAP surveys at each evaluation point. Resource allocation at the school and system level will be monitored via qualitative research at each evaluation point.
	Parents and other stakeholders have different expectations of girls' and boys' academic performance, considering 'men and boys are generally brighter'. **Girls, or CWD are not perceived capable of reaching the levels a boy may be able to.** **The aspirations and expectations** of girls and adolescents are low, partially driven by the requirement to get married. This influences their	Attitudes of key stakeholders towards the educational capabilities of girls, boys and GWD will be examined at the household, caregiver, community, school and system level. KAP surveys will capture changes in attitudes over time (towards disability, IE, girl's capacity to learn, likelihood of investing in GWD education) Attendance will be tracked and drop-out reasons monitored, thus providing data around barriers to attendance and transition. Self- esteem and life skills of GWD (and the control group) will be measured at each evaluation point at the household/ caregiver level (via a life skills assessment

[34] See inception report section around pilot adaptations for one example of where the evaluation team has carefully considered the overall Fund Manager guidance against a 'do no harm' principle. Here, we have suggested an alternative approach to piloting which will still result in a robustly sound technical approach whilst adhering to our Child Protection policy

	life choices, leading to pressure to drop out of school and fulfil other responsibilities.	scale) and at the individual girl level, via a composite array of questions around agency, life skills, self -efficacy (including career ambitions).
	For GWD, **overprotection from families** and their fear of them being abused is another obstacle to their education. Likewise, families' often value **disabled girls as a source of domestic labour** over sending them to school. **Girls (and GWD) take on a heavy chore burden,** stemming from the traditional perception that sees children as a source of domestic labour and the need to prepare girls and boys on their 'future roles'. **This negatively impacts on girls' time and their ability to attend school and study.** This is not the same for boys who are free to pursue co-curricular activities. This adds to the gender gap in learning outcomes as girls have less time to study than boys	Barriers to attendance will be asked during the household and caregiver surveys, along with specific questions around the safety of travelling to school for boys and girls, and BWD and GWD. Sections around child abuse and child protection are asked at all levels (school, community, education authority, household), which will provide more detailed information around the risks GWD face compared to boys and BWD Questions to examine chore burden will be asked during the Pupil Context Interview. This will be triangulated against a similar section in the household/caregiver interview. This will provide an interesting comparison around girls (versus their families) views around chore burden. We will also be comparing qualitative data from focus groups with BWD and their families to do a more nuanced gender comparison. The learning gap between BWD and GWD will be analysed at evaluation points (although we will not have statistically significant data from BWD)
School Level – Teaching and Learning	The **school's environment** is impacted by socio cultural and economic realities; hence it remains **more favourable for boys than for girls.** This negatively affects Girls' enrolment, attendance, retention and performance. Whilst the GoU is pushing to equalise numbers between boys and girls, **schools** need to address the cultural norms around career prospects, and **need to provide supportive sanitation facilities for girls**	Teacher, headteacher and education authorities' attitudes will be examined to understand the level of support for girls and GWD. Schools will be monitored via a checklist to see whether key aspects to support IE are in place (such as usable, clean, accessible toilets, a IE and CP policy, attendance data)
	Enrolment, attendance and retention rates of boys and girls in Uganda similar for primary, but at secondary level there are significantly more boys than girls. This is thought to be driven by (a) cost – and attitudes around the value of investment (b) Child labour/ family aspirations	Households will be asked questions to determine investment priorities and their attitudes towards the VfM of girls/GWD's education against boys and other competing household expenses. Child labour, chores and attitudes around aspirations for girls/GWD will be examined as per the above (see KAP above)
	The quality of teaching in Uganda is variable but often lacking. **Teachers entertain stereotypes** that boys are cleverer than girls, and so **girls are given less opportunities to participate** than boys. Teachers also have **lower expectations of GWD**, again, leading to a failure in support provided. This **negatively impacts on girls' self esteem** and learning potential. It also leads to violence (verbal and physical) in school. The **learning environment is not conducive to girls' learning**. The curriculum is not engendered and therefore the content, methodology, instructional materials and environment does not promote equal learning among boys and girls and those with disabilities.	*Knowledge and attitudes* of teachers towards girls/boys/ GWD/BWD will be examined via an interview which incorporates a KAP (see above) Teaching *practices* will be evaluated via a lesson observation tool which will create an 'inclusivity' score, based on domains such as girl/boy inclusion and participation, CWD/GWD inclusion and participation, the use of punishment and praise. The use of disability sensitive teaching and learning materials will be monitored, and the access of boys and girls to materials will be monitored via the lesson observation tool.

System Level – Laws and Policies	The government has supported international and regional gender and education statutes, declarations and protocols to generate a **policy environment** that is **conducive to gender equality in education.** To ensure that these policies and legislations are implemented, the government of Uganda has established a Ministry of Gender Labour and Social Development. The ministry is mandated to monitor and regulate all gender related activities in the country. Under the Ministry of Education and Sports, there is also a Gender Desk/unit that promotes activities aimed at correcting gender imbalances in education. However, policy implementation is slow and less sustained than is expected. For example, there is **no government policy on re-entry** in school or continuing with school for **mothers and pregnant girls**. The Gender in Education Strategic plan addresses the issue of the **lack of female teachers.** It has identified the low numbers of qualified female teachers and the lack of role models for girls as a barrier to learning. The plan addresses the issue of few women in managerial and leadership positions as part of the solution to influence career aspirations of girls.	The evaluation seeks to determine the extent to which education authorities (a) understand and recognise the value of educating girls and girls with disabilities, and the value of inclusive education and (b) are taking steps to implement supportive policies and practices in their areas. Attitudes towards inclusive education, child protection and education for boys and girls will be collected via semi structured interviews. Commitment towards policy implementation will be evaluated by a broad look at budget allocation, policy implementation and the level of resource committed to schools for monitoring, oversight and capacity building- and how this changes over time. Barriers will be explored qualitatively and triangulated with the quantitative data.