A META-ANALYSIS: BASIC EDUCATION IN RWANDA – 2011 TO 2022

A PRELIMINARY REPORT OF A RETROSPECTIVE REVIEW OF PROJECTS IMPLEMENTED UNDER USAID/RWANDA DEVELOPMENT OBJECTIVE 2: LEARN

Updated August 2023

DISCLAIMER

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ACRONYMS

9YBE	Nine-Year Basic Education Policy
12YBE	12-Year Basic Education Policy
CDCS	Country Development Cooperation Strategy
CEW	Community Education Worker
CLAA	Collaborating, Learning, and Adapting Activity
CPD	Continuous Professional Development
DEO	District Education Officer
DFID	Department for International Development
EDC	Education Development Center
EGRA	Early Grade Reading Assessment
FHI	Family Health International
GER	Gross Enrollment Rate
GOR	Government of Rwanda
ICT	Information and Communication Technology
IP-IST	Implementing Partner In-Service Training
IP-PST	Implementing Partner Pre-Service Training
IST	In-Service Training
KII	Key Informant Interview
L3	Literacy, Language, and Learning
LOA	Life of the Activity
MINEDUC	Ministry of Education
NER	Net Enrollment Rate
ORF	Oral Reading Fluency
P1	Primary School Grade 1
PR	Promotion Rate
PST	Pre-Service Training
RC	Reading Comprehension
REAP	Rwandan Education and Advancement Programme
REB	Rwandan Education Board
SEI	Sector Education Inspector
SEO	Sector Education Officer
SGAC	School General Assembly Committee
SOP	Standard Operating Procedure
STEM	Science, Technology, Engineering, and Mathematics
TEFL	Teaching English as a Foreign Language
TTC	Teacher Training College
TVET	Technical and Vocational Education
UK	United Kingdom
URCoE	University of Rwanda College of Education
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VSO	Voluntary Service Overseas

EXECUTIVE SUMMARY

BACKGROUND

The Government of Rwanda (GOR) has rolled out three education sector policies which have expanded access to basic education from six years (2003) to nine years (2006) to 12 years (2012). To broaden compulsory education to encompass more students, the Rwanda Education Board relies on three main approaches.

- Teacher specialization where teachers focus instruction on specific subject(s) rather than teaching all subjects to one classroom.

- Fewer core courses, reducing from 9 to 5 for grades 1-3 and 11 to 6 for grades 4-6.

- Double shifting where schools manage twice the number of students, who spend fewer hours per week at school.

USAID/Rwanda followed USAID/Washington's 2011 education strategy by working to improve reading skills for 100 million children in primary grades by 2015. The USAID/Rwanda Country Development Cooperation Strategies (CDCS) align with the USAID/Washington 2018 education strategy to a) train teachers, b) develop teaching and learning materials, essential for learning, c) enhance education management to increase transparency and accountability, and d) strengthen parent and community engagement to support learning.

Between 2011 and the present, USAID/Rwanda has funded seven different Activities: Literacy, Language, and Learning (L3); Mentorship Community of Practice (MCOP); Soma Umenye; Mureke Dusome; Tunoze Gusoma; Itegure Gusoma; and Uburezi Iwacu. Other donors have funded numerous other projects in support of basic education. All projects, along with the GOR programs, work together to improve student learning outcomes.

STUDY DESCRIPTION

The study investigated three of USAID Rwanda's learning questions:

1. Overall, what have the USAID Rwanda basic education and youth workforce Activities achieved when we compare the situation in Rwanda in 2008 to today's situation?

2. What are the major lessons learned and successful strategies that contributed to those achievements?

3. What have been the major obstacles standing in the way of further progress?

The current study focuses only on the basic education sector activities. A separate report covers youth workforce development achievements and learning.

STUDY METHODS

The meta-analysis design aligns with the USAID/Washington education strategy and CDCS. The investigation and this report were organized into five categories of information, as shown in 1: a) teacher skills, b) instructional and learning materials, c) education management system, d) community support, and e) improved learning outcomes.

The study gathered secondary data from various reports created by USAID-funded projects, the GOR, and other basic education stakeholders. Reports were mined for quantitative and qualitative data, which were analyzed using Excel spreadsheets and ATLASti. Key Informant Interviews (KIIs) were conducted to clarify information in reports, not to gather new information. There were several limitations to the study which were mitigated by conducting a thorough document review—which included validating questionable data using multiple reports.

FINDINGS

USAID-funded Basic Education Activities supported the GOR to develop the training infrastructure for students studying to become teachers and for active teachers. They have directly supported thousands of teachers by providing pre-service and in-service training.

USAID-funded Activities have been instrumental in reducing the student to book ratio from three students per book in 2012 to one student per book in 2015 and 2020/21 (nationally). They supported the GOR's development of new curriculum, designed new materials, and distributed learning and teaching materials to schools throughout the country in support of reading Kinyarwanda and mathematics. Cumulatively, USAID Activities have distributed 14.8 million teaching and materials.

USAID-funded Activities have invested heavily in strengthening national, district, and school-level management systems. These include developing teaching methods, reading teacher supervisory guidelines, and standardized tests for P1 to P4 reading and mathematics students. Reportedly, 52,698 teacher training sessions were conducted. They also trained school administrators and School General Assembly Committees (SGACs) to support school operations and promote reading.

Figure 1. Study Framework

Description: *Four intervention areas and one outcome were investigated for this study.*

Community support was instrumental in raising awareness and subsequent caretaker involvement with their children's studies. Interventions supported increases in enrollment and student reading time outside of school.

The number of students enrolled in primary school increased over time and students test scores improved over time within grade levels and from one grade to the next. Despite greater numbers of students enrolled annually, about 10 percent of students repeat the grade they are in, and another 10 percent drop out. Males are particularly susceptible to not being promoted.

At impact level, we note that over a 6-year period, we note that the number of students who stayed in school, from P1 to P6, was significantly higher between 2016 and 2020/21 than between 2011 and 2015, an important system-wide achievement. The number of students enrolled in the 2020 P6 class is 45% of the 2015 P1 class versus the 2015 P6 class being 28% of the 2010 P1 class.

With regards to early grade literacy outcomes, between 2014 to 2022, P2 zero scores (non-readers) reduced from 33% down to 20%. Additionally, the percent of all P2 students able to answer at least 1 reading comprehension question increased from 62% to 74%, and the proportion passing the proficiency benchmark in reading comprehension (3 out of 5 questions correct) increased from 51% to 57%.

RECOMMENDATIONS

Teacher Skills: Evaluators recommend a greater understanding of skills-building needs and delivery methods from the perspective of teachers, taking into consideration the move from Kinyarwanda to English as the primary reading language and teacher turnover/length of employment. Use TTC tutors as in-service trainers to spread new methods to pre-service training as well. Continue emphasizing school-based professional development.

Instructional & Learning Materials: The evaluation team strongly recommends the government undertake additional research on effectively using both Kinyarwanda and English in schools. USAID implementers can also research more about whether currently available materials and technologies are being used, and what obstacles stand in the way.

Education Management System: Develop and roll out pedagogical methods which cater to different reading levels in the same classroom or help schools to develop systems to group same-level students into reading classes, regardless of the grade level in which they are enrolled. This categorization would help to diminish the challenges
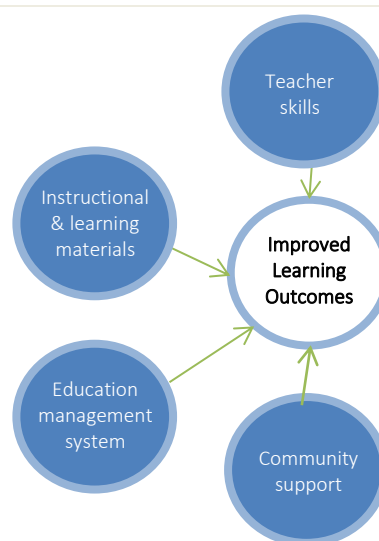
faced by teachers whereby students in one classroom read at different levels and are different ages. Implement more consistent methods to track and improve teacher and student attendance and punctuality.

Community Support: Home & community support for literacy are crucial and can benefit from continued investment. The success of the community support interventions presents an opportunity to include messages on barriers to literacy success, as identified by teachers and community members. Continue community sensitization to encourage optimal enrollment and attendance practices which maximize promotions. It is also important to learn from past projects' approaches to strengthening school committees.

Improved Learning Outcomes: Now that enrollment numbers are stellar, more efforts can be directed toward improving attendance and arriving at school on time.

Monitoring & Evaluation: Clearly document Early Grade Reading Assessment (EGRA) methods of administration, data handling, indicator tabulation, and reporting.

INFOGRAPHIC

BASIC EDUCATION IN RWANDA

USAID FROM THE AMERICAN PEOPLE

Results from a retrospective review of Activities implemented under USAID/Rwanda's Development Objective 2: LEARN

Education Context in Rwanda

- **98.9%** Primary School Enrolment Rate. Highest Net Enrollment Rate in Sub-Saharan Africa
- **19%** Increase in students enrolled in Primary School between 2010 and 2020

Between 2010 and 2019, there was:
- **5%** increase in Promotion Rates
- **16%** decrease in Repetition Rates
- **32%** decrease in Dropout Rates

How USAID has Influenced Retention and Reading Abilities

USAID supports innovative teaching and learning tools to improve students' basic literacy and numeracy skills at the primary level.

Thus far:
- **14,765,837** teaching and learning materials produced and distributed
- **52,698** teacher training interactions conducted to improve reading pedagogy and student assessment
- **38,000** lead teacher and school administrator training interactions to better monitor and improve teacher delivery and student reading
- Encouraged communities and caregivers to support literacy at home. **65%** of households with something to read at home in 2020, up from 23% in 2014

List of USAID-funded Programs
- 2011-2016 Literacy, Language, and Learning [L3]
- 2016-2021 Soma Umenye
- 2016-2021 Mureke Dusome
- 2017-2020 Itegure Gusoma
- 2021-2025 Tunoze Gusoma
- 2021-2026 Uburezi Iwacu

Education Access Outcomes

Retention of students enrolled in 2010 vs 2015
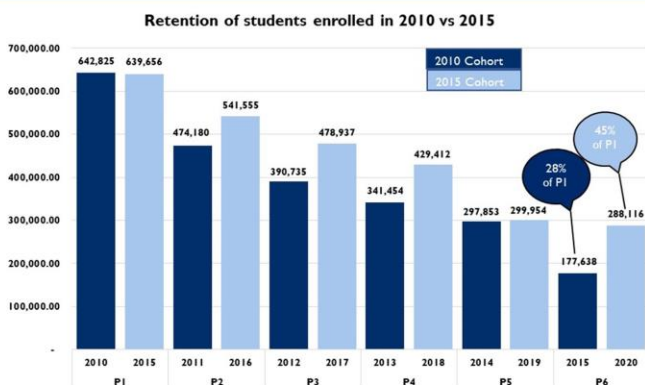
- The total numbers of P1 students enrolled in 2010 (642,825) and 2015 (639,656) were similar
- The number of students who stayed in school, from P2 to P6, was drastically higher between 2016 and 2020/21 than between 2011 and 2015
- The number of students enrolled in the 2020 P6 class is 45% of the 2015 P1 class versus the 2015 P6 class being 28% of the 2010 P1 class
- Retention rates greatly increased since the USAID-funded L3 project started in 2011 (UNICEF, 2017)

Early Grade Literacy Outcomes

Percent of P2 students who cannot read
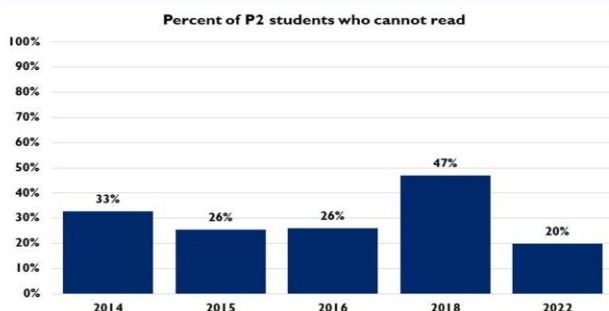
- In collaboration with the Rwanda Education Board, USAID-funded Activities developed comprehensive reading assessments for P1 to P3 students
- Between 2014 to 2022:
  - P2 zero scores (non-readers) reduced from 33% to 20%
  - % of P2 students passing the Oral Reading Fluency benchmark increased from 25% to 32%
  - % of P2 students able to answer at least 1 reading comprehension question increased from 62% to 74%

Recommendations

- For comparability, use the same survey and analysis methods every year to assess literacy
- Improve the quality and frequency of teacher training, particularly in competence-based curriculum and related pedagogical strategies
- Support mentorship and monitoring systems on supporting teachers in mastering pedagogical practices

1 BACKGROUND

This section provides a brief background of the Rwandan policy context, USAID basic education strategies and Activities, and a short list of other basic education support projects in Rwanda.

1.1 GOVERNMENT OF RWANDA (GOR) BASIC EDUCATION LEADERSHIP

Starting in 2003, the GOR's Education Sector Policy offered six years of free, compulsory primary school education to build human capacities to reduce poverty and, ultimately, improve the welfare of Rwandans. In 2006 the Nine-Year Basic Education (9YBE) policy extended free, compulsory education from six years of primary school to six years of primary school for seven- to 12-year-olds plus three years of general cycle of secondary education for 13- to 15-year-olds. 9YBE implementation started in 2007. In 2012, basic education was extended to 12 years through the 12-Year Basic Education (12YBE) policy.

The basic education policies are planned and coordinated by the Ministry of Education (MINEDUC) and implemented by the Rwandan Education Board (REB). MINEDUC's current Education Sector Strategic Plan (2018/2019–2023/2024) focuses on nine priorities (MINEDUC, 2019):

1) "Enhanced quality of learning outcomes that are relevant to Rwanda's social and economic development.

2) "Strengthened continuous professional development and management of teachers across all levels of education in Rwanda.

3) "Strengthened Science, Technology, Engineering, and Mathematics (STEM) across all levels of education in Rwanda to increase the relevance of education for urban and rural markets.

4) "Enhanced use of Information and Communication Technology (ICT) to transform teaching and learning and support the improvement of quality across all levels of education in Rwanda.

5) "Increased access to education programs, especially at the nursery (pre-primary), primary, secondary, Technical and Vocational Education (TVET), and higher education levels in Rwanda.

6) "Strengthened modern school infrastructure and facilities across all levels of education in Rwanda.

7) "Equitable opportunities for all Rwandan children and young people at all levels of education.

8) "More innovative and responsive research and development in relation to community challenges.

9) "Strengthened governance and accountability across all levels of education in Rwanda."

These priorities are being implemented by the REB using three approaches:

o Teacher specialization where teachers focus instruction on specific subject(s) rather than teaching all subjects to one classroom.

o Fewer core courses, reducine from 9 to 5 for grades 1-3 and 11 to 6 for grades 4-6.

o Double shifting where schools manage twice the number of students, who spend fewer hours per week at school.

1.2 USAID/RWANDA BASIC EDUCATION SUPPORT

USAID/Washington's 2011–2015 Education Strategy focused on three goals.

o Goal One: Improved reading skills for 100 million children in primary grades by 2015.

o Goal Two: Improved ability of tertiary and workforce development programs to produce a workforce with relevant skills to support country development goals by 2015.

o Goal Three: Increased equitable access to education in crisis and conflict environments for 15 million learners by 2015.

Projects in support of Goal One have been implemented in Rwanda since 2011. These projects followed the USAID standard formula of interventions in the following list, excepting the last bullet point. USAID-funded programs in Rwanda did not rehabilitate infrastructure.

o Training teachers.

o   Developing teaching and learning materials, essential for learning.

o   Enhancing education management to increase transparency and accountability.

o   Strengthening parent and community engagement to support learning.

o   Building infrastructure to increase access to education.

In response to learning from the 2011–2015 Education Strategy, USAID's updated 2018 Education Strategy promotes the following principles in addition to programmatic activities.

o   Prioritize country focus and ownership.

o   Focus investments on measurably and sustainably improving outcomes.

o   Strengthen systems and develop capacity in local institutions.

o   Work in partnership and leverage resources.

o   Drive decision-making and investments using evidence and data.

o   Promote equity and inclusion.

The USAID/Rwanda's CDCS and Activities mirror USAID/Washington strategies and priorities for education. From 2011 USAID interventions Literacy, Language, and Learning (L3), Mentorship Community of Practice (MCOP), Mureke Dusome, Soma Umenye, Tunoze Gusoma, Itegure Gusoma, and Uburezi Iwacu have carried out interventions from the USAID 2011 Education Strategy and actualized the principles highlighted in the USAID 2018 Education Strategy as illustrated by the Table 1 below. The table also shows the funding levels for the different Activities.

Table 1: USAID/Rwanda Basic Education Activities

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
L3	$26,759,553															
MCOP					$2,400,000											
Soma Umenye						$72,400,000										
Mureke Dusome						$10,828,793										
Itegure Gusoma							$2,295,756									
Uburezi Iwacu											$17,749,484					
Tunoze Gusoma											$32,050,516					

The interventions are described in detail in the FINDINGS Section.

1.3   OTHER BASIC EDUCATION SUPPORT

In addition to GOR and USAID/Rwanda basic education programs, several other international stakeholders have supported basic education. Examples of additional programs are listed below in chronological order:

o   FHI 360, U.S. Department of State, The Ambassador Girls Scholarship Program (2004–2011)

o   U.S. Peace Corps Teaching English as a Foreign Language (TEFL) and teacher support (2009–present)

o   EDC, Department for International Development (DFID) Early Childhood Caregiver (2013–2015)

o   Save the Children, Advancing the Right to Read (2013-2017)

o   GOR, DFID Global Education (2015–2018)

o   World Food Programme, USDA Food for Education and Child Nutrition (2016–2020)

o   Health Poverty Action, DFID Girls Education Challenge (Transitions) Rwandan Education and Advancement Programme (REAP) (2017–2019)

o   World Food Programme, USDA Home-Grown School Feeding (2020–2025)

o   Voluntary Service Overseas, Lego Foundation Building Learning Foundations (2021–2025)

o   Voluntary Service Overseas, Lego Foundation Let's Learn Through Play (2021–2025)

The list of other projects supporting basic education is not comprehensive. The list of projects, above, highlights other contributors and alludes to the fact that achievements are not attributable to one donor or project alone. The authors of this report consider the achievements in the basic education sector to be attributable to multiple programmatic efforts.

1.4 DESCRIPTION OF READING OUTCOME MEASURES

USAID-funded Activities use a Rwanda-adjusted standardized reading test, the Early Grade Reading Assessment (EGRA) to assess Kinyarwanda reading skills for students in early grade classrooms. The EGRA contains questions related to subtasks assessing listening comprehension, letter identification, syllable sound identification, word reading, ORF, and RC. Including the first test in 2011, the EGRA has been administered six times in Rwanda by different USAID-funded partners. Each of the test are described in Table 2. The exam was first administered to P4 and P6 grades at the beginning of the academic year in 2011 and included two subtasks. Subsequent year exams assessed students at the end of the indicated grade and included different subtasks.* Pupils are asked to read the sounds of letters or consonant-vowel pairs, a list of familiar words drawn from the curriculum, and then read a short story. The Oral Reading Fluency (ORF) score measures the number of words from the passage read correctly in one minute, while the Reading Comprehension (RC) score measures the % of questions correctly answered about the same passage. Some assessments also included an oral comprehension subtask and other elements.

Table 2: Assessment reports capturing EGRA data and subtasks assessed each time

Year (*total sample*)	Report Titles	Grades Included	Letter Data	Word Data	ORF* Data	RC* Data
2011 (*840*)	RTI. (2012) EdData II Task Order 7 *Early Grade Reading and Mathematics in Rwanda Final Report* ((RTI), 2012).	Beginning of P4 & P6	No	No	Yes	Yes
2014 (*1,237*)	EDC. (2014) *Rwanda National Reading and Mathematics Assessment Baseline Report* ((EDC), 2014).	End of P1-P4	No	No	Yes	Yes
2015 (*2,580*)	EDC. (2016) *National Fluency Assessment of Rwandan Schools (FARS) Midline Report* ((EDC), 2016).	End of P1-P4	No	No	Yes	Yes
2016 (*2,387*)	EDC. (2017) *National Fluency and Mathematics Assessment of Rwanda Schools Endline Report* ((EDC), 2017).	End of P1-P4	No	No	Yes	Yes
2018 (*4,650*)		End of P1-P3	Yes	Yes	Yes	Yes
2022 (*2,200*)	FHI 360. (2022) *Baseline Early Grade Reading Assessment (EGRA) and IDELA Report* (FHI360, 2022).	End of P2*	Yes	Yes	Yes	Yes

cases, these assessments were at the end of the academic year for the school calendar used at the time (e.g. they assessed the skills of children who had completed P1, P2, etc). In the 2021-22 academic year, the school calendar changed from January-September to a new ‑   ‑ ‑ administered at the beginning of the school year to children who had advanced to P4 and P6. These scores could be comparable to the achievements of children who completed P3 and P5 respectively; however they exclude any children who had to repeat the prior year. Therefore this report reports these 2011 scores as collected, for P4 and P6, noting that this was at the beginning of the year.

The exams contain a short paragraph in Kinyarwanda of 27 to 58 words. Higher grades have longer texts. The number of words, for all grade levels, vary from year to year as paragraphs are not the same each year. Texts are followed by five reading comprehension questions. The level of comprehension question difficulty also increases by grade.

Questions under each subtask are used to calculate indicator values. The indicators are explained in the bullet pointed list below. This report include the indicators with enough data points to allow for meaningful longitudinal analysis.

- Zero score = could not correctly read even one word or respond to even one question

- % Zero score = count of zero scorers / total number of pupils tested

- Average # correct = sum of individual pupil scores / total number of pupils tested

- Average % correct = sum of individual pupil % correct / total number of pupils tested

- % meeting Benchmark = count of students meeting benchmark / total number of pupils tested

1.4.1 ORAL READING COMPREHENSION BENCHMARKS

The Oral Reading Fluency (ORF) benchmark sets proficiency standards for the number of words a pupil can read out loud correctly per minute – see Figure 2.

As shown in Table 3 below, the minimum proficiency scores increased, for all grades, between 2016 and 2018. P2 previously had a higher benchmark in 2014. For P2, the primary focus for USAID, we note fluctuation in the benchmarks assessed.

Table 3: EGRA Benchmarks: Oral Reading Fluency

GRADE	2011	2014	2015	2016	2018	2022
P1		>0*	>0*	>0*	≥10*	N/A
P2	≥45*	≥33*	≥20	≥20	≥25	≥25
P3	≥45*	≥33	≥33	≥33	≥40	N/A
P4	≥45*					
P6	≥45*					

*No national standard. Project benchmarks for "passing" used

Figure 2: EGRA Example test for oral reading fluency & comprehension in English ((RTI), 2012)

Passage reading and comprehension:

Passage:

My name is Senga. I live on a farm with my mother, father, and sister Ana. Every year, the land gets very dry before the rains come. We watch the sky and wait. One afternoon as I sat outside, I saw dark clouds. Then something hit my head, lightly at first and then harder. I jumped up and ran towards the house. The rains had come at last.

Comprehension questions:

1. Where does Senga live?
2. Why does the land get dry?
3. Why do Senga and his family watch the sky?
4. What hit Senga on the head?
5. How do you think Senga felt when the rains came?

1.4.2 READING COMPREHENSION BENCHMARKS

The Reading Comprehension (RC) benchmark sets proficiency standards for the % of comprehension questions a pupil should be able to answer correctly (number of questions answered correctly / 5 questions asked). Note that minimum passing scores decreased for P2, between 2016 and 2018 as shown in Table 4 below. Students who could not read any words in the passage are automatically counted as achieving 0 correct answers in the reading comprehension score.

Table 4: EGRA Benchmarks: Reading Comprehension

GRADE	2011	2014	2015	2016	2018	2022
P1		≥80%	≥80%	≥60%	≥60%	
P2	≥80%	≥80%	≥80%	≥80%	≥60%	≥60%
P3	≥80%	≥80%	≥80%	≥80%	≥80%	
P4	≥80%					
P6	≥80%					

2 STUDY METHODS

USAID/Rwanda commissioned the Collaborating, Learning, and Adapting Activity (CLAA) to summarize USAID/Rwanda basic education support and achievements from 2011 to present. They shared three learning questions they wanted the retrospective study to answer:

1. Overall, what have basic education and youth workforce Activities in Rwanda achieved when we compare the situation in Rwanda in 2008 to today's situation?

2. What are the major lessons learned and successful strategies that contributed to those achievements?

3. What have been the major obstacles standing in the way of further progress?

This meta-analysis used secondary data sources to answer USAID's learning questions related to the basic education sector. Data were pulled from reports and analyzed as five topics which form the basis of the study framework.

2.1 DESIGN

The study framework used the major intervention areas of USAID-funded projects as organizational topics by which information would be categorized, analyzed, and discussed. As shown in Figure 3, the study includes five main topics, four types of interventions (teacher skill, instructional and learning materials, education management system, and community support), and reading outcomes.

Under each USAID learning question, results are presented and discussed by the four intervention areas and learning outcomes.

The USAID/Rwanda office has supported basic education projects to advance self-reliance of Rwandans since 2011. When assessing the achievements of basic education programs, it is important to keep in mind that they have outcomes on student's lives 20 years later, long after all inputs (books, community support systems, *etc.*) have been replaced and teachers retired. These long-term outcomes include economic well-being as adults.

Figure 3. Study Framework

Description: *Four intervention areas and one outcome were investigated for this study.*

2.2 DATA COLLECTION

To generate a balanced perspective of how USAID projects improved education outcomes, a range of data sources were used. A total of approximately 200 documents were reviewed from five different types of data sources:

*   GOR official reports and data tables.

*   Academic articles on Basic education projects and governance.

*   Reports from non-USAID development actors.

*   Data from contextual documents and USAID-funded project documents.

*   Stakeholders' and expert views on USAD projects. These were gathered through structured and unstructured approaches.

These data sources bolstered researchers' understanding of the data and, also, the context in which data were generated, disseminated, and used.

2.3 DATA MANAGEMENT AND ANALYSIS

The following steps process was applied during data analysis:

*   Data were pulled from reports and entered in spreadsheets.

- Quantitative data were checked and cleaned multiple times to ensure that data were de-duplicated and datasets were clean.

- Contradictory findings were verified using multiple sources to ensure the greatest accuracy.

- Quantitative data were plotted in bar graphs by year.

- Longitudinal data were analyzed using trendlines and goodness of fit tests.

- Qualitative data were used to explain the quantitative data graphs.

Reports were analyzed to be able to describe the USAID/Rwanda basic education project, the Rwanda context.

2.4 LIMITATIONS

Key limitations encountered during the study:

- Missing reports from USAID-funded projects left holes in trend analysis. Data variances in reports resulted in extra time used in data triangulation.

- Indicator definitions were rarely available for USAID project reports, so interpretations took time.

- Indicators changed from year to year with USAID changes to foreign assistance indicators, reducing comparability of similar indicator values over time.

- Comparability issues arose when using datasets from different assessments, applying different assessment and sampling methods for different purposes, and with different benchmarks.

- Assessments were not standardized across years and comparability of measured learning outcomes is not possible.

- With a very broad spectrum to be covered in a limited timeframe, it was not possible to explore all topics in-depth. It was not possible to include interviews with all stakeholder groups, *e.g.,* project staff and Implementing Partner (IP) organizations.

3 FINDINGS

The study findings can be used to answer USAID/Rwanda's first learning question, "Overall, what have basic education and youth workforce in Rwanda achieved, when we compare the situation in Rwanda in 2008 to today's situation?" The other two learning questions will be answered in the DISCUSSION section below.

3.1 USAID LEARNING QUESTION 1: OVERALL, WHAT HAVE BASIC EDUCATION AND YOUTH WORKFORCE DEVELOPMENT ACTIVITIES IN RWANDA ACHIEVED WHEN WE COMPARE THE SITUATION IN RWANDA IN 2008 TO TODAY'S SITUATION?

The USAID Learning Question No. 1 seeks to understand achievements in the basic education and youth workforce sectors. This report will only look at basic education achievements between 2011 and 2021. Achievements for Youth Workforce Development are presented in a separate report.

3.1.1 TEACHER SKILLS

Overall, we note that cumulatively, 52,698 teacher training interactions were conducted by the two Activities ((CHEM), 2021), ((EDC), Literacy, Language and Learning (L3) Initiative - Final Report, 2017)) to improve reading pedagogy and student assessments as illustrated by Figure 5 below. The numbers in the Figure 4 represent unique cumulative numbers of teachers trained by the Activities but we note that they could have trained the same individual teachers on repeated occasions.

Figure 4. Number of teacher training sessions conducted by Activity
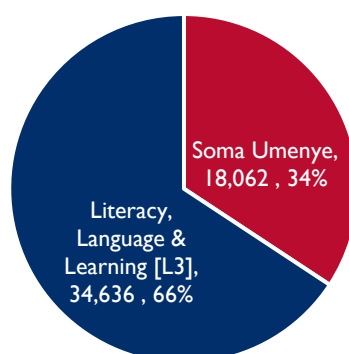
The MINEDUC Statistical Yearbooks show the total number of primary school teachers increased from 36,352 in 2010 to 60,666 in 2020/1. Two prior USAID Activities, L3 and Soma Umenye, built skills in literacy instruction for primary school Kinyarwanda reading teachers. While Soma Umenye focused on Kinyarwanda teachers in P1-P3, L3 included Kinyarwanda, English, and Math teachers for P1-P4. Both activities also worked with the REB, the University of Rwanda College of Education (URCoE), and other stakeholders to create a common vision for teaching literacy and national teacher standards. Although USAID activities focused on training P1-P3 or P4 teachers and did not formally include upper primary teachers, the lower primary grades have the greatest enrollment and a larger number of teachers proportionally. Additionally, teachers do not always remain within the same grade or subject area. For this reason, this report compares the total number of primary teachers to teacher training numbers under USAID activities.

Figure 5. Number of primary school teachers trained by USAID (shaded) vs. total numbers of primary school teachers in Rwanda by sex and year
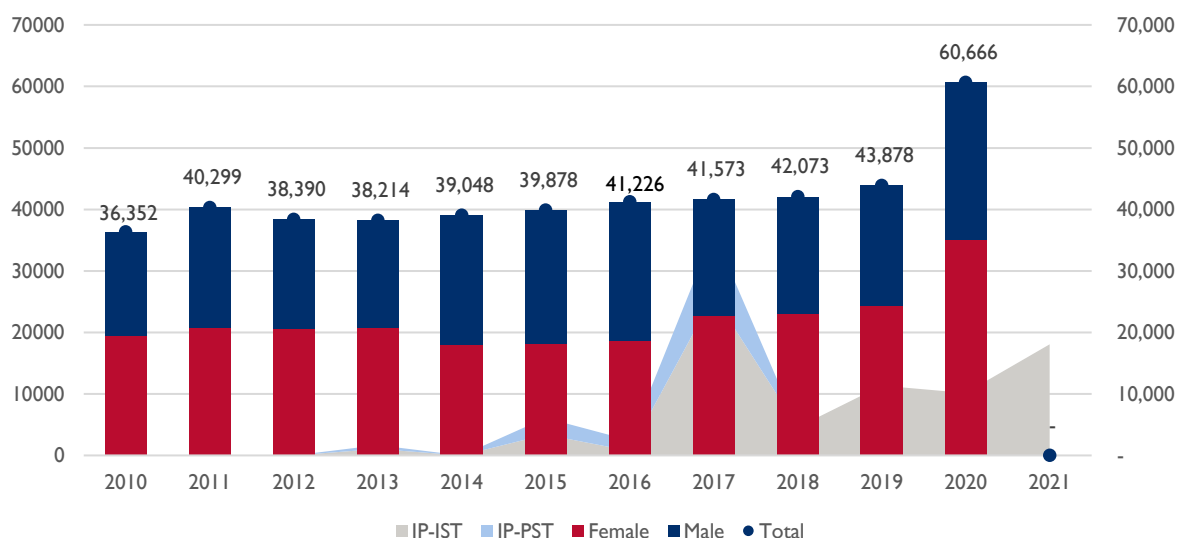
Description: *The numbers of teachers trained through Implementing Partner In-Service Training (IP-IST) and Implementing Partner Pre-Service Training (IP-PST) are represented by the light blue and light grey area graphs, respectively. The total number of primary school teachers are shown as female (red bars) and males (blue bars) between 2010 and 2020/2021. (**Sources**: Ministry of Education. Statistical Yearbooks and Primary School Trained Teachers. (**Sources:** L3, 2013, 2015, 2016 and 2017; Chemonics, 2019 and 2021)*

Of the teachers counted by MINEDUC, the L3 Activity provided In-Service Training (IST) for over half (24,405) of all primary school teachers, with a focus on teachers in grades 1 to 4, over the Life of the Activity (LOA). L3 also supported thousands of teacher trainees (10,231) through (Pre-Service Training [PST]) during the same time. IST was largely completed through a teacher mentorship program and learning audio recordings. PST and IST training instilled effective reading practices, using evidence-based reading instructional materials. The implementer, Education Development Center (EDC), promoted the idea of investing in PST, through Teacher Training Colleges (TTCs). This approach brought the latest learning and research to TTC instructors, assisted them in embedding evidence-based learning into their curriculum for new teachers, and equipped them with current materials for new students. L3 recommends that ongoing teacher training be a part of maintaining teacher credentials and a system be created to support the initiative. To implement training activities, L3 coordinated with Voluntary Service Overseas (VSO) and U.S. Peace Corps volunteer organizations to avail Rwanda of cost-effective educational expertise.

Soma Umenye provided IST to approximately 25 percent of primary teachers (18,000) over the LOA, with a focus on Primary 1-3 teachers. Under Soma Umenye, teachers received face-to-face training on evidence-based instructional practices and self-study resources that reinforced what they learned in training. All teacher training by Soma Umenye was through IST. They developed training materials in support of REB's School-Based Mentorship Framework and coaching materials for the district-level communities of practice. They found that "many schools lacked teachers qualified to be lead teachers in the school-based orientation" ((CHEM), 2021). They developed competencies which align with REB's 2019 teacher performance standards.

> *"The most cost-effective means of developing a new cohort of early grade reading teachers is strong TTC preparation paired with expert support at the beginning of a teacher's career." ~ Soma Umenye (* ((CHEM), 2021)*)*

3.1.2 INSTRUCTIONAL AND LEARNING MATERIALS

The number of Kinyarwanda reading books in circulation has increased with the expanding population of enrolled students. On average in 2012, three students shared one Kinyarwanda reading book. In 2015, the rate improved to one book per pupil. In Figure 6 we see that ratio has been maintained for the last three years for which MINEDUC published data, although more recent auditing reports show book availability in schools has significantly declined following efforts to send books home during COVID-19 closures ((OAG), 2022).

USAID-funded L3 and Soma Umenye Activities contributed to the increased numbers of Kinyarwanda materials. It took an average of one year to develop new materials for each grade level.

Figure 6. Ratio of number of pupils per Kinyarwanda book
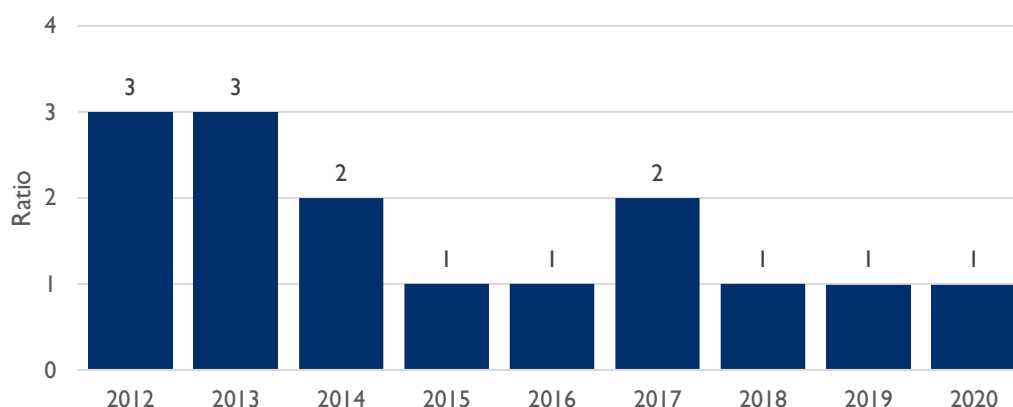
Description: *The number of students sharing Kinyarwanda reading books decreased from three pupils per book in 2012 to 1 pupil per book in 2020* (MINEDUC-NISR, 2021).

In 2011, L3 reviewed existing Kinyarwanda textbooks and supplemental materials, interviewed teachers and parents, and observed Kinyarwanda reading classes. They used the baseline findings to develop new written, audio, and video learning and teaching materials with age-appropriate social messages. Materials included Interactive Audio Programs (IAI), grade-specific teacher manuals, teacher read-aloud books, decodable books or texts, solar panels, cell phones, SD cards, and speakers. According to the final report, L3 produced and distributed approximately 8 million units of materials. The numbers of materials, reflected in Figure 8, were taken from L3 annual reports and do not correspond to the final report total.

> *"Creating audio lessons that are more supplementary in nature rather than fully scripted might provide more opportunities for differentiated instruction…. Well-designed and thoughtful video-based resources are an important, cost-effective supplement to other modes of in-service teacher training"* ((EDC), 2017).

Soma Umenye's final report stated that they had distributed 6.4 million teaching and learning materials. Note that the annual reports for Soma Umenye also did not report numbers of materials that correspond to the total in the final report. Materials included teacher guides, student textbooks, teacher read-alouds, decodable readers, and leveled readers. They developed new materials with REB after conducting a review of existing materials against five foundational early reading skills of phonological awareness, phonics, fluency, vocabulary, and comprehension.

Overall, we note that the three main Activities cumulatively distributed 14,765,837 materials as illustrated by Figure 7 as reported in the Activity final reports ((CHEM), 2021), ((EDC), Literacy, Language and Learning (L3) Initiative - Final Report, 2017), ((SC), 2021).

Figure 7. Number of materials provided by USAID Activities by Activity

(Pie chart: Soma Umenye, 6,493,281, 44%; Literacy, Language & Learning [L3], 8,099,629, 55%; Mureke Dusome, 173,781, 1%)
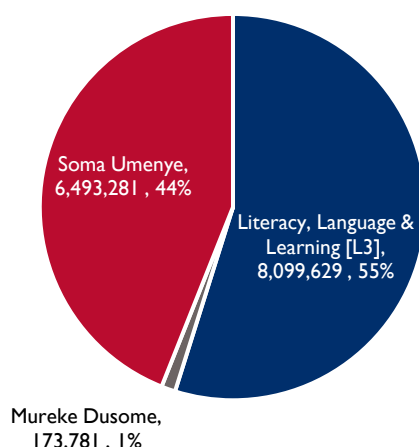
Description: *L3, Soma Umenye, and Mureke Dusome projects collectively distributed 14,765,837 materials as reported in their final reports. (***Sources***: ((EDC), 2017), ((CHEM), 2021).*

Further examination of the materials data by year, according to project annual reports, is illustrated below. It is worth mentioning that the final reports review did not provide year by year data of materials data which accounts for the variance with the cumulative materials distributed.

Figure 8. Number of materials provided (in thousands) by USAID Activities, by year

(Bar chart, Number (000): 2013: 89; 2015: 966; 2016: 14; 2017: 170; 2018: 232; 2019: 1,467; 2020: 5,130; 2021: 2,839)
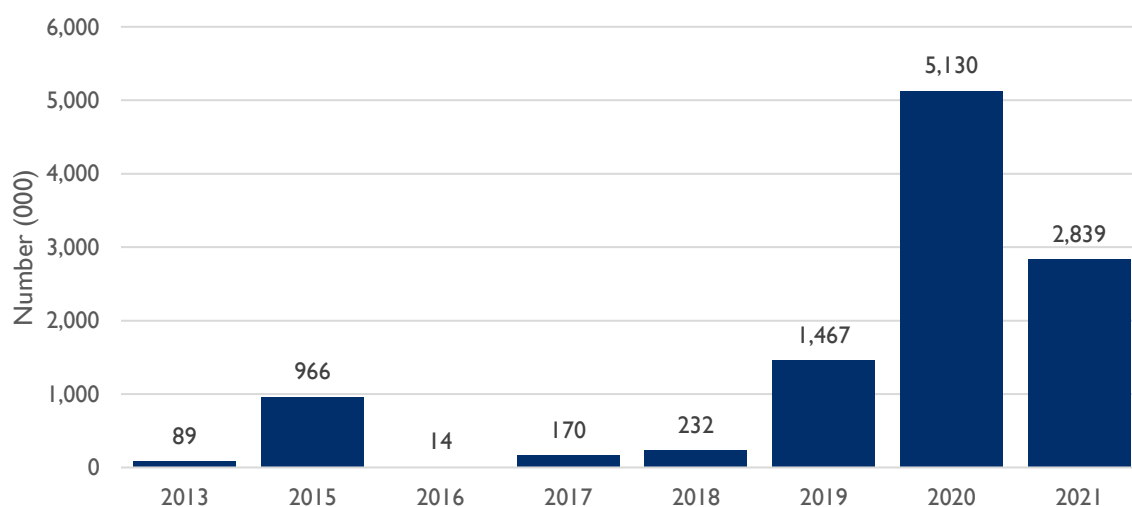
Description: *L3 and Soma Umenye projects reported fewer materials provided in annual reports than in the final report. This graph shows the number of materials provided as shared through annual reports. (***Sources***: (MINEDUC-NISR, 2021), ((EDC), 2017), ((CHEM), 2021).*

During the L3 baseline study, 60 percent of teachers reported always using Ministry of Education textbooks in their classrooms. By contrast, they observed that no textbooks were used, at any time, in 49 percent of the sampled Kinyarwanda classes. During the endline study, 57 percent of teachers reported using L3 technology or materials at least once a week. The Tusone Gusome Activities' baseline study found that 71 percent of respondents who received materials under the Soma Umenye Activity reported using them.

The 2018 study commissioned by Soma Umenye and published in 2020 reported that 23.0 percent of teachers report using the REB/USAID Soma Umenye P1 teacher's guide, one-fifth (20.7 percent) reported using the REB/USAID L3 teacher's guide, and 14.3 percent reported using the REB/Drakkar teacher's guide (EdIntersect, 2020). This question must be asked differently in different studies because the in the same study, EdIntersect (EdIntersect, 2020) reported that 94 percent of teachers surveyed reported using teachers' guides in their classrooms and in 2017 EDC ((EDC), 2017) reported that 97 percent of teachers surveyed reported using teachers' guides in their classrooms.

The Rwandan Textbook Procurement and Distribution Policy of 2009 dictated that educational materials be printed in Rwanda. This forced partners to pay local printers for producing print materials and thus greatly developed the printing industry in Rwanda.

3.1.3 EDUCATION MANAGEMENT SYSTEM

The bars in Figure 9 represent the number of administrators working in Rwandan primary schools. In 2017, MINEDUC reported a total of 2,333 primary school administrators. The number increased to 2,914 in 2020/2021. Note that the graph does not contain data earlier than 2017 because MINEDUC Statistical Yearbooks started to report the number of primary school administrators in 2017 (MINEDUC-NISR, 2021).
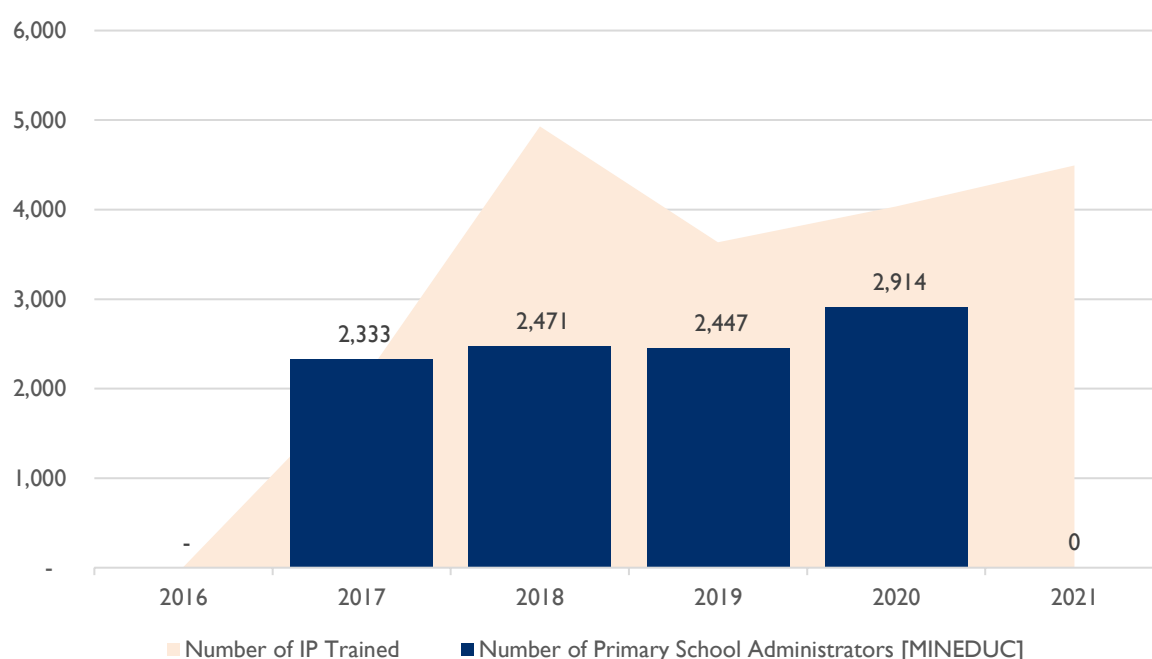
The tan area chart shows the number of school leaders that Soma Umenye reported training over the life of the Activity. School leaders included head teachers, their deans of studies (in schools with secondary students), Sector Education Inspectors (SEIs), and District Education Officers (DEOs). Cumulatively, USAID activities had 37,961 school leader training interactions on how to apply Rwanda's standards to improve early grade reading instruction.

Figure 9. Number of primary school administrators (bars) and number of school leaders trained (area)

Description: *The number of primary school administrators reported by MINEDUC are shown as blue bars in the graph. The tan area graph represents the number of primary school leaders trained by the Soma Umenye Activity. The number of leaders number trained is greater than the number of administrators because leaders can include head teachers who may or may not be administrators.* **Sources**: *(MINEDUC-NISR, 2021),* *((CHEM), 2021).*

> *"During constructive feedback meetings, I first give room to the teacher to share how the lesson went and what he/she would do differently, if given a chance to re-teach the lesson. Then I go on to share what I have seen the teacher doing well followed by one or two areas for improvement. I always end with something that went well. This is contrary to what I was doing in the past as I only focused on all that went wrong in the lesson and blamed the teacher."*
> *~ Head Teacher*

An average of 2,540 leaders were trained each year. The greatest number of school leaders were trained in 2018 (2,471) and 2020/2021 (2,914). The final report stated that "Soma Umenye trained more than 4,000 education leaders." This cumulative number of leaders trained does not correspond to the numbers of leaders trained contained in annual reports.

While the Soma Umenye Activity focused on improving administration and leadership at the local level, the earlier L3 Activity worked with central level REB staff. L3 sat on numerous committees and working groups to support curriculum development and pedagogical approaches, create standardized reading and mathematics

exams, build TTCs as centers of excellence, design observation system and tools to monitor teacher practices, and train personnel on how to use the reporting system, Data Winners.

Teacher motivation is one of the most cited challenges for school management. Even before the period of this study, a 2007 study of the general population found that 42 percent of community member respondents felt that teachers were "sometimes" available. (Lynd, 2010) A 2010 assessment of the educational system identified teachers as "the weak link in the chain" of educational quality due to under-motivation. At the time of the study, Rwanda teachers were the lowest paid and had the largest class sizes of 12 Sub-Saharan countries (Lynd, 2010). L3 worked with SGACs to show appreciation for and encourage teachers. This intervention will be further presented in Section 3.1.4 Community Support..

> *"Thanking teachers at public gatherings, as advised by the L3 program, has had a significant impact in terms of changing community mentalities and perceptions towards teachers and teaching, which is traditionally seen as a lesser, unworthy profession." ~ District Education Officer*

Teachers listed other management challenges including overcrowded classrooms, children being different ages or reading at varying levels, some children being promoted to the next grade when they should not have been, and disabilities—including hearing problems ((EDC), 2016).

3.1.4 COMMUNITY SUPPORT

L3, Soma Umenye, and Mureke Dusome Activities worked with parents and community leaders to foster a culture of reading outside of schoolwork. L3's community activities encouraged reading outside of the classroom by training and working with SGACs to encourage parents to read with their children, develop libraries, allow children to take books home, promote equity for girls and students with disabilities, and hosting writing workshops. Soma Umenye continued the same initiatives.

Mureke Dusome worked with REB to create and actualize the national literacy policy. They continued the L3 Umuganda Literacy interventions, distributed books to high performing libraries, and created a network of 5,100 literacy champions and 754 Community Education Workers (CEWs) in five districts. One hundred and thirty-seven (137) Youth Volunteers with Disabilities raised communities' awareness of special needs for children with disabilities and incorporated literacy messages into Urunana biweekly radio shows. Volunteers encouraged children to re-enroll in school and established 2,524 reading clubs across the country where children read outside of school hours.

Activities gauge the success of these interventions by measuring levels of parental support for their children's reading. Figure 10 includes five indicator values. The left-most indicator measures passive support for literacy, having a non-textbook in the house. L3 also measured whether a pupil reported seeing their caregiver reading at home. The indicators "stories read to pupils at home," "caregiver checks homework," and "caregiver supports literacy learning at home"[1] measure active support at home for literacy. All the indicator values increased over time.

> *"Almost three quarters of learners said that a caregiver at home reads stories to them (73.7 percent) compared to roughly half (50.1 percent) at baseline [in 2014]"* ((EDC), 2017).

Early findings from the 2023 Uburezi Iwacu baseline assessment suggest that these improvements have been at least partially sustained over time, with 72% of target population caregivers engaged in at least one reading activity during the past week (up from 59% in the Mureke Dusome 2016 baseline).[2]

This means that with sensitization and creating a culture of amplified expectations for what parental support means, caregivers spent more time reading with children, and children spent more time reading on their own.

> *"At the endline, 13 percent of children reported having places in the community where they can go to read or borrow Kinyarwanda storybooks in contrast with 10 percent at midline and 6 percent of children at the baseline. In addition, there is a huge increase in the time children spend reading at home, from 16 percent at midline to 52 percent in the endline"* ((SC), 2021).

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[1] The Mureke Dusome indicator "Proportion of parents (caregivers) who provide support to children's literacy learning at home" is defined as follows in the MEL plan: Percentage of parents that answer "once a week" or more often to the KAP question, "How often do you read to or help your younger children with their reading?" OR, that answer "Yes" to the KAP question: Did any household member read to (CHILD) in the last week? OR, that answer "Yes" to the KAP question: In the last month, did any household member ever help or encourage (CHILD) to read or write, or help them with their homework?

[2] Uburezi Iwacu baseline, 2013, Table 13 on p. 20 – 72% is the inverse of the 28% who reported engaging in none of the listed activities.

Figure 10. Home environment indicators
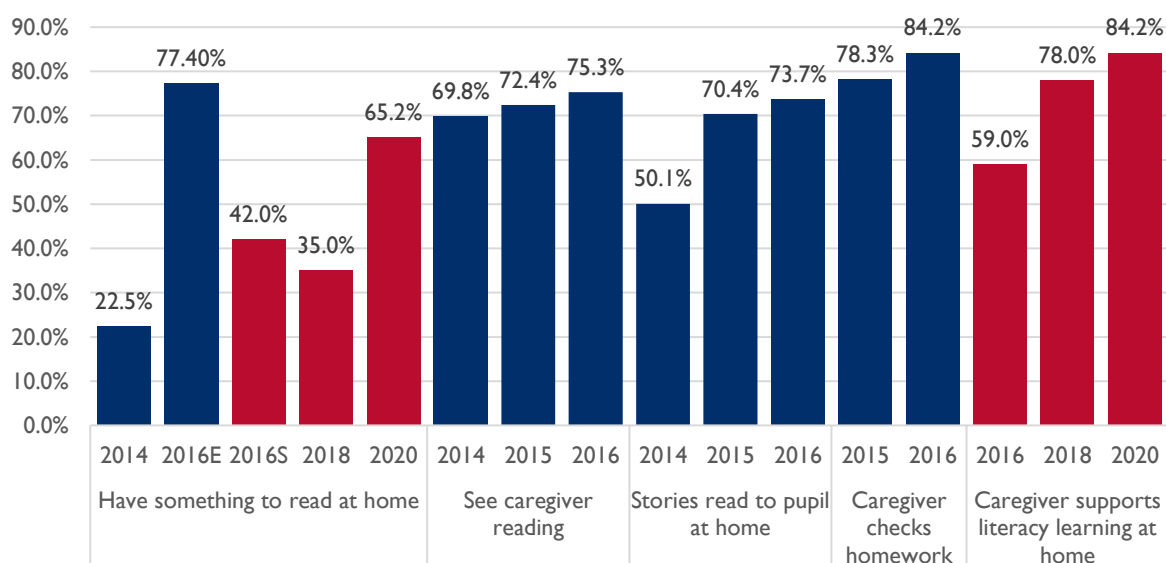
Description: *The L3 Activity data are shown by blue bars. Mureke Dusome data area shown by red bars. These data show that over time, households more actively promoted reading at home. (*Sources*: ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), (SC, 2019), ((SC), 2021).*

According to the L3 Endline Evaluation report, community involvement positively impacted P3 and P4 students' literacy exam scores. They reported a positive statistical correlation between caregivers checking the learner's homework and performance on literacy assessments. (EDC. 2017. Endline Evaluation Report.) These high z-scores indicate that there is a statistically significant difference between student assessment scores in cases where caregivers were significantly involved by checking learner's homework and where caregivers did not check homework.

> *"Analysis showed that the strongest relationships between learner characteristics and performance on the FARS was found with whether a parent/caregiver checked the learner's homework as well as with learner's age."* (EDC. 2017. Endline Evaluation Report.)

The same line of questioning was pursued by Soma Umenye/Chemonics in 2018. Through their assessment contractor, EdIntersect, they looked at time spent in the classroom. They found that students who spend more time in school scored higher on literacy assessments.

> *"…between 13 and 20% of P1-P3 pupils reported being late to school the day before data collection, while 40 to 50% reported being absent from school at least one day in the previous week. Tardiness and absenteeism were uniformly negatively associated with reading performance (both fluency and comprehension)."* (EdIntersect. 2020. EGRA Report)

3.1.5 IMPROVED LEARNING OUTCOMES

The GOR quantifies learning outcomes through student enrollment numbers; enrollment rates; and promotion, repetition, and dropout rates. USAID-funded Activities quantified learning outcomes using EGRA standardized assessment scores. This section presents GOR statistics and EGRA results.

3.1.5.1 STUDENT ENROLLMENT

The total number of students enrolled in Rwandan primary schools has increased from 2.3 million in 2010 to 2.7 million in 2020. The growing numbers of male and female primary students is shown in Figure 11. From 2010 to 2016, the number of female students exceeded the number of male students. This trend reversed starting in 2017.

In addition to the total number of students enrolled, we looked at enrollment rates to understand the proportions of students who are enrolled in school.

Gross Enrollment Rate (GER)

Number of children enrolled in primary school

Total number of children between 7 to 12 years of age in the population

Net Enrollment Rate (NER)

Number of children ages 7 to 12 enrolled in school

Total number of children between 7 to 12 years of age in the population

The formulas for Gross Enrollment Rates (GERs) and Net Enrollment Rates (NERs) are contained in the text box above. GERs increased from 127 percent in 2010 to 150 percent in 2020 (MINEDUC, 2019). These proportions are greater than 100 percent because the number children enrolled in school exceeds the number of children in the applicable age group—in other words, some are older than 12 and younger than seven. The NER increased from 95 percent in 2010 to 99 percent in 2020/2021 (MINEDUC-NISR, 2021). Nearly all school-age children were enrolled in school during the last school year.

Figure 11. Number of P1 to P6 students enrolled in Rwanda by year and sex

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020/21
■ Female P1-P6	1,166,	1,190,	1,214,	1,218,	1,217,	1,236,	1,275,	1,267,	1,244,	1,243,	1,359,
■ Male P1-P6	1,132,	1,150,	1,180,	1,183,	1,181,	1,213,	1,271,	1,272,	1,259,	1,268,	1,370,
Total P1-P6	2,299,	2,341,	2,394,	2,402,	2,399,	2,450,	2,546,	2,540,	2,503,	2,512,	2,729,
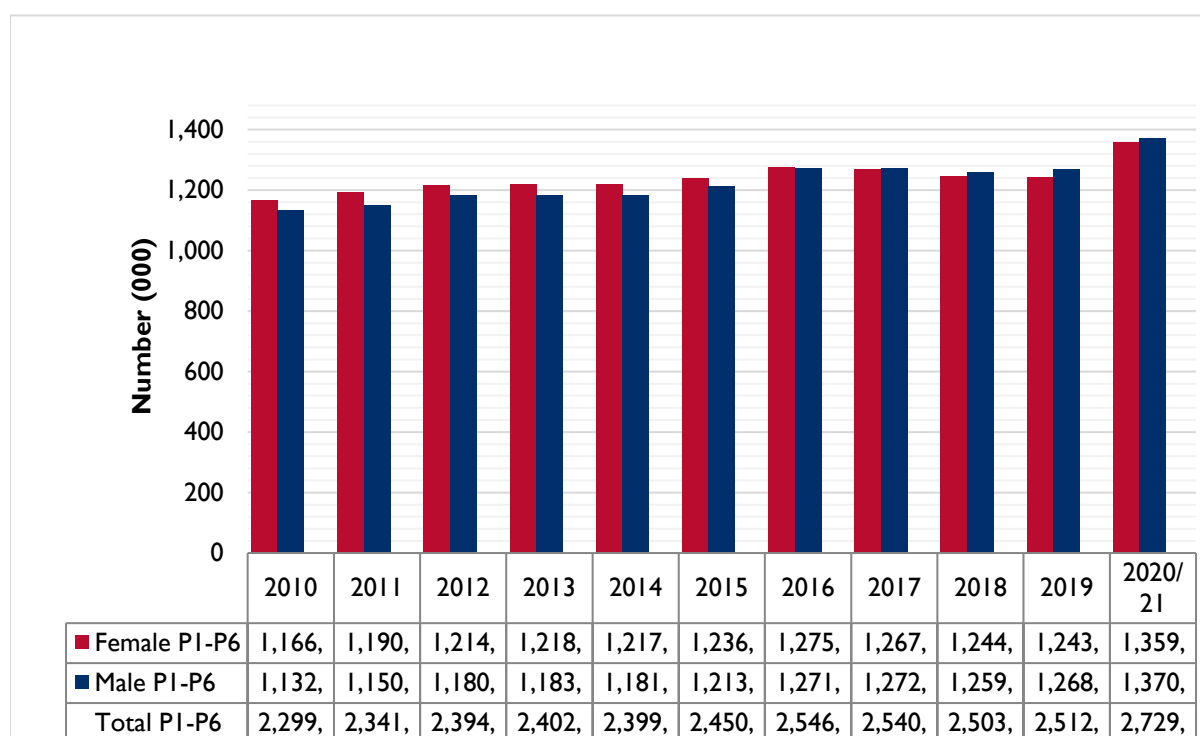
Description: *The total number of students enrolled in primary school increased from 2.3 million in 2010 to 2.7 million in 2020/2021* (MINEDUC-NISR, 2021).

While USAID-funded programs worked in all 30 districts, not all schools—nor, by extension, students—were supported. Over the life of the L3 Activity, they reached 1,835,500 students through their interventions. Soma Umenye reported reaching over 2.2 million students over the life of their Activity. Figure 12 demonstrates the reach of the USAID-funded Activities. L3 annual reports reported a smaller number of students than in their final report. Soma Umenye reported reaching more students than the GOR reported were enrolled. One or both data sources are faulty. The graph shows that L3 reached about one-third of all P1–P4 students and Soma Umenye reached all P1–P3 students.

Figure 12. Number of P1–P3 students enrolled and supported by USAID projects by year
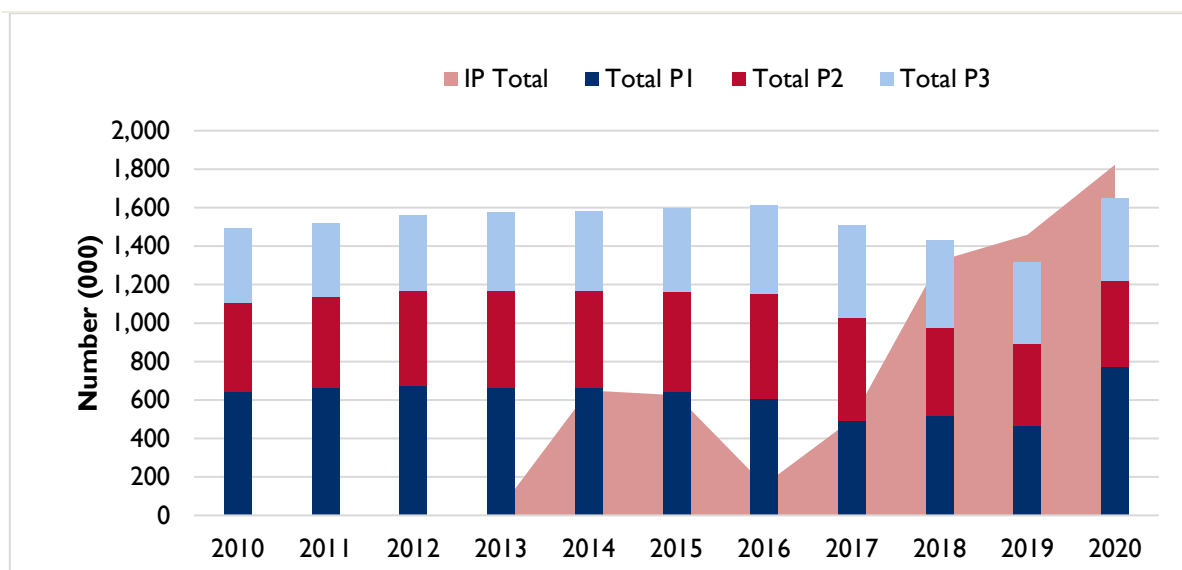
Description: The stacked bars represent the number of children enrolled in P1 to P3. The area chart indicates the number of students reached by USAID-supported Activities. The number of pupils reached exceeds the number enrolled, perhaps because the numbers reported by MINEDUC are inaccurate or the Activity double-counted some students. (Sources: (MINEDUC-NISR, 2021), ((CHEM), 2021), ((EDC), 2017).

3.1.5.2   PROMOTION, REPETITION, AND DROPOUT RATES

This section presents student promotion (Figure 13), repetition (Figure 14), and dropout rates (Figure 15) together as the three represent the only three possibilities for what happens to students each school year.

The Promotion Rate (PR) shows the percentage of pupils passing to the next grade for the following school year. It indicates the number of pupils entering a given level of education as a percentage of the pupils who were enrolled in the previous year at previous level. PRs increased by 6 percentage points for females between 2010 (76 percent) and 2019 (82 percent) and by 2 percentage points for males from 2010 (75 percent) and 2019 (77 percent). Females are consistently promoted in greater proportions than male primary school students. There was a dip in male and female PRs in 2013 and a spike in 2018. The ten-year average promotion rate for females is 77 percent and 75 percent for males (MINEDUC-NISR, 2021).

Figure 13. Promotion rate for primary school students
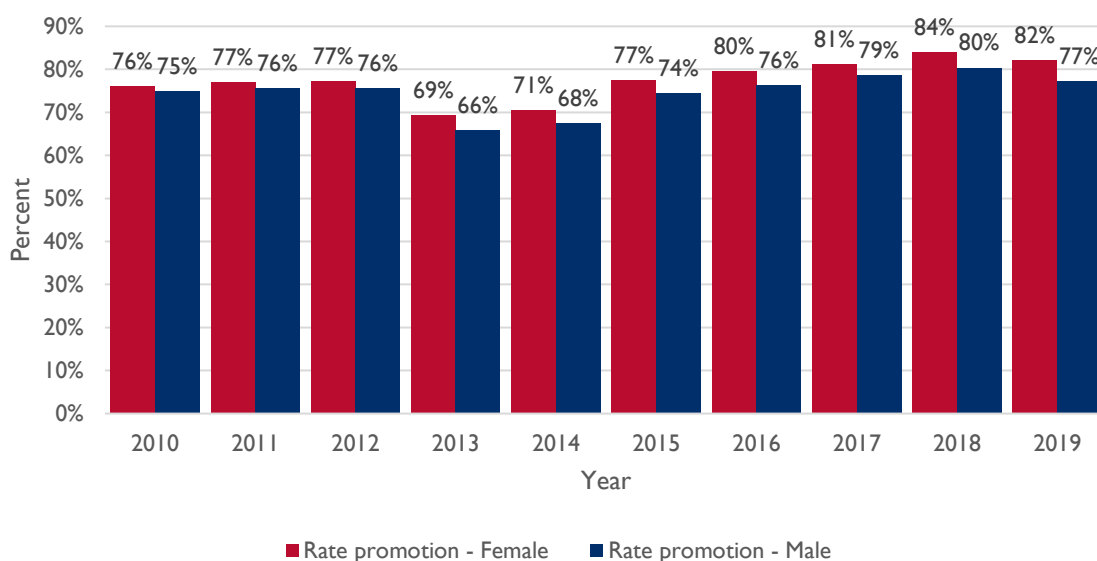
Description: *This graph shows the proportion of primary school students who pass from one grade to the next between 2010 and 2019. Females are promoted at slightly higher rates than their male counterparts (MINEDUC-NISR, 2021).*

The proportion of pupils enrolled in a given grade and a given school year who study in the same grade the following school year. Repetition rates are consistently higher for males than females. Female repetition rates decreased from 13 percent in 2010 to 10 percent in 2019. Fourteen (14) percent of males repeated their grade in 2010 and 12 percent of males repeated in 2019. The average repetition rate for females is 14 percent and 15 percent for males. Repetition rates decreased between 2010 (26 percent) and 2019 (22 percent) (MINEDUC-NISR, 2021).

Figure 14. Primary school repetition rate

Description: *This graph shows the proportion of primary school students who repeated the same grade from one year to the next between 2010 and 2019. Males repeat at higher rates than females (MINEDUC-NISR, 2021).*

The dropout rate is the proportion of pupils enrolled in a given grade at a given school year who are no longer enrolled in the following school year. Dropout rates can also be obtained by subtracting the sum of promotion rate and repetition rate from 100 in a given school year. According to the data, dropout rates are consistently higher for males than females. The dropout rate for males was the same in 2010 (11 percent) as in 2020/2021. The dropout rate for females decreased from 2010 (11 percent) to 2020/2021 (8 percent). The 10-year average dropout rate for females is 8 percent and 10 percent for males.
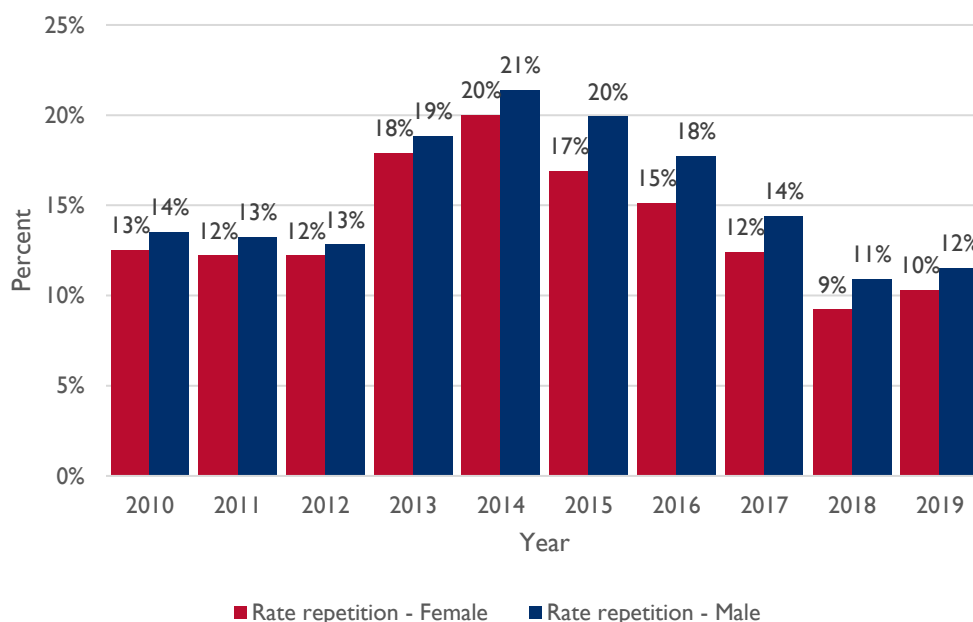
Figure 15. Dropout rate for primary school students
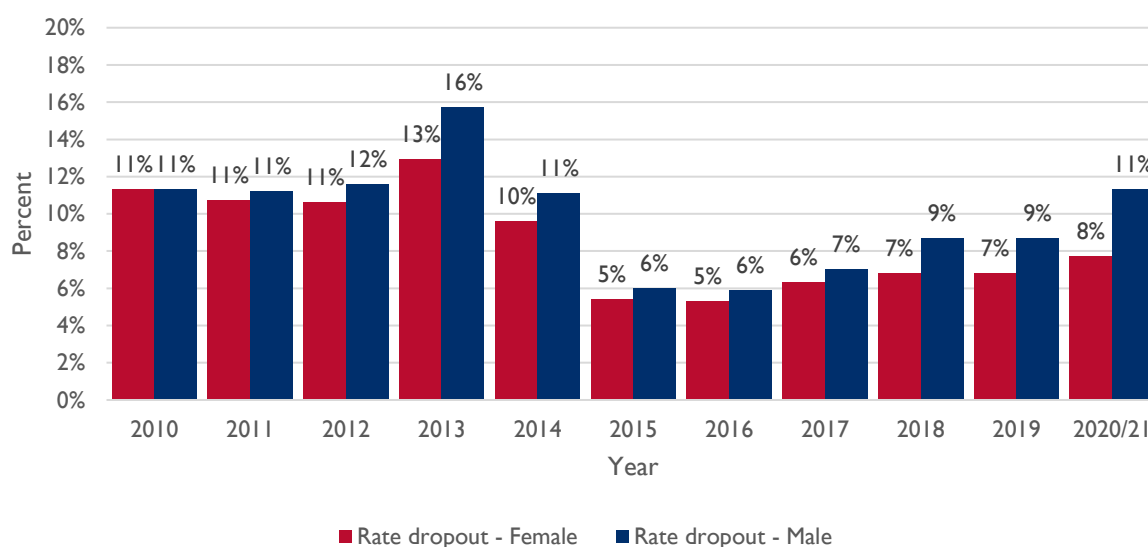
Description: *This graph shows the proportion of primary school students who do not enroll for the subsequent school year from one year to the next between 2010 and 2019. Males drop out at higher rates than females (MINEDUC-NISR, 2021).*

3.1.5.3 EGRA ORAL READING FLUENCY (ORF)

The principal indicator measuring the oral reading fluency subtask is the average number of words students were able to read aloud in one minute. These averages are graphed by grade level and year, in Generally, students in higher grades can read a greater number of words in one minute. There is an upward trend for grades 1 to 3 between 2014 and 2016. A new exam was created in 2018 and is comparable to the 2022 results. A comparison of the 2018 and 2022 data show improvements for the only grade tested in 2022, P2—from 10.6 in 2018 to 17.9 in 2022.

Figure 16. Average number of words read aloud correctly in one minute (measured at the end of the grade except in 2011)
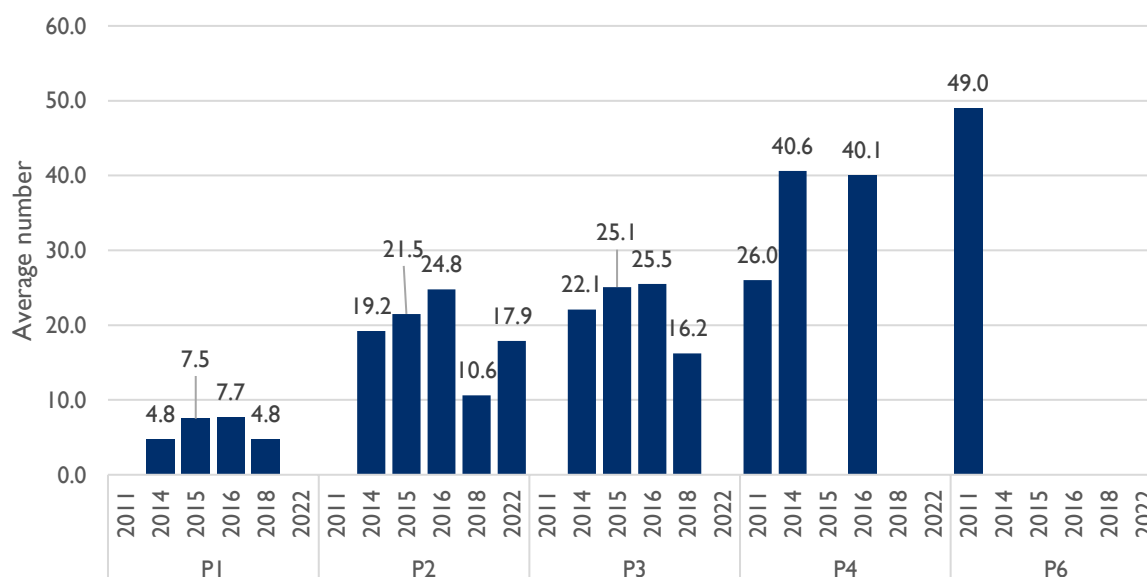
Description: *This graph shows the average number of correct words read aloud per minute, between 2011 and 2022, grouped by grade level. This indicator was not reported for all grade levels, for all years. The average number of words read increases by grade, except from P2 to P3 ((EDC), 2016), ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), ((RTI), 2012), (Chemonics, 2018), (Chemonics, 2021), (FHI360, 2022).*

Students unable to read one word correctly were included in the average calculation. Figure 17 shows the percentage of students, by grade, who scored zero on the oral reading fluency portion of the exam. At the end

of the 2014 school year, 60 percent of P1 students were unable to read a single word. P2 zero scores (non-readers) reduced from 33% in 2014 to 20% in 2022. This high proportion of children reading no words significantly reduced the average number of words read.

Figure 17. Percent of students reading aloud zero words correctly per minute
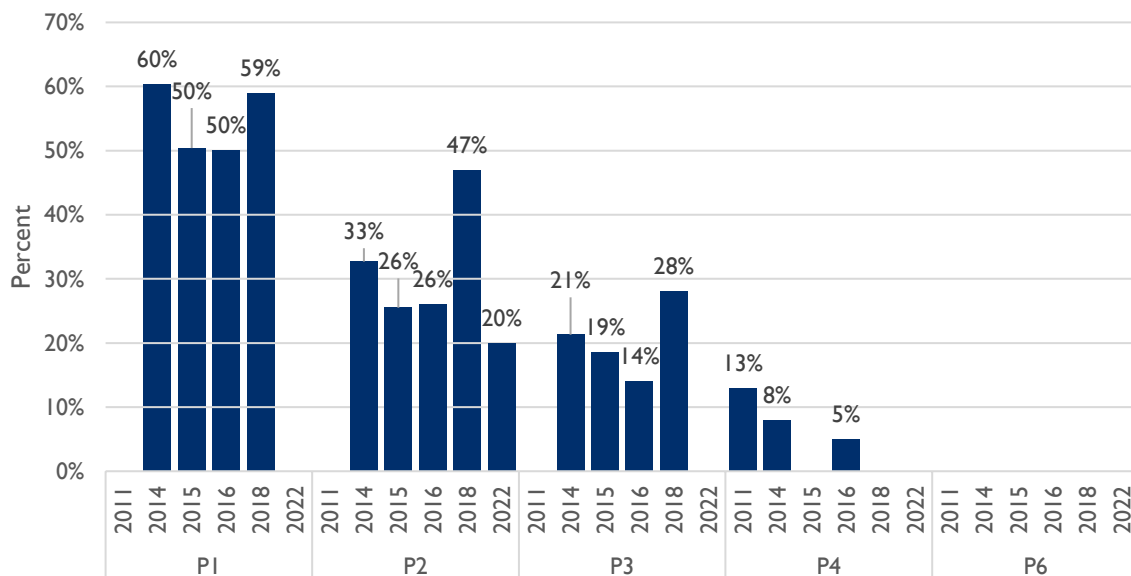
Description: *The higher the grade, the greater the proportion of students who can read at least one word. More than half of P1 students read no words for all years the EGRA was administered. Between 2014 and 2016, more students were reading* ((EDC), 2016), ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), ((RTI), 2012), (Chemonics, 2018), (Chemonics, 2021), (FHI360, 2022).

The proportion of P1 to P3 students meeting ORF fluency benchmarks is graphed in Figure 18. For each grade level, note that the benchmarks are not constant over time. For example, in 2014, 25% of P2 students read at grade level whereas 61% of P2 students read at grade level in 2016. The ORF proficiency benchmark for P2 in 2014 was to correctly read 33 words aloud in one minute whereas the benchmark dropped to 20 words per minute in 2016. In 2018, the benchmark increased again to 25 words.

Due to the changes in benchmarks, there are no discernable trends or patterns other than 2018 scores are considerably lower for all grades. We also observe that a greater proportion of P1 and P2 students met their assigned benchmarks than P3 students.

Figure 18 Percent of students meeting ORF proficiency benchmarks

Percent of students meeting oral reading fluency benchmark
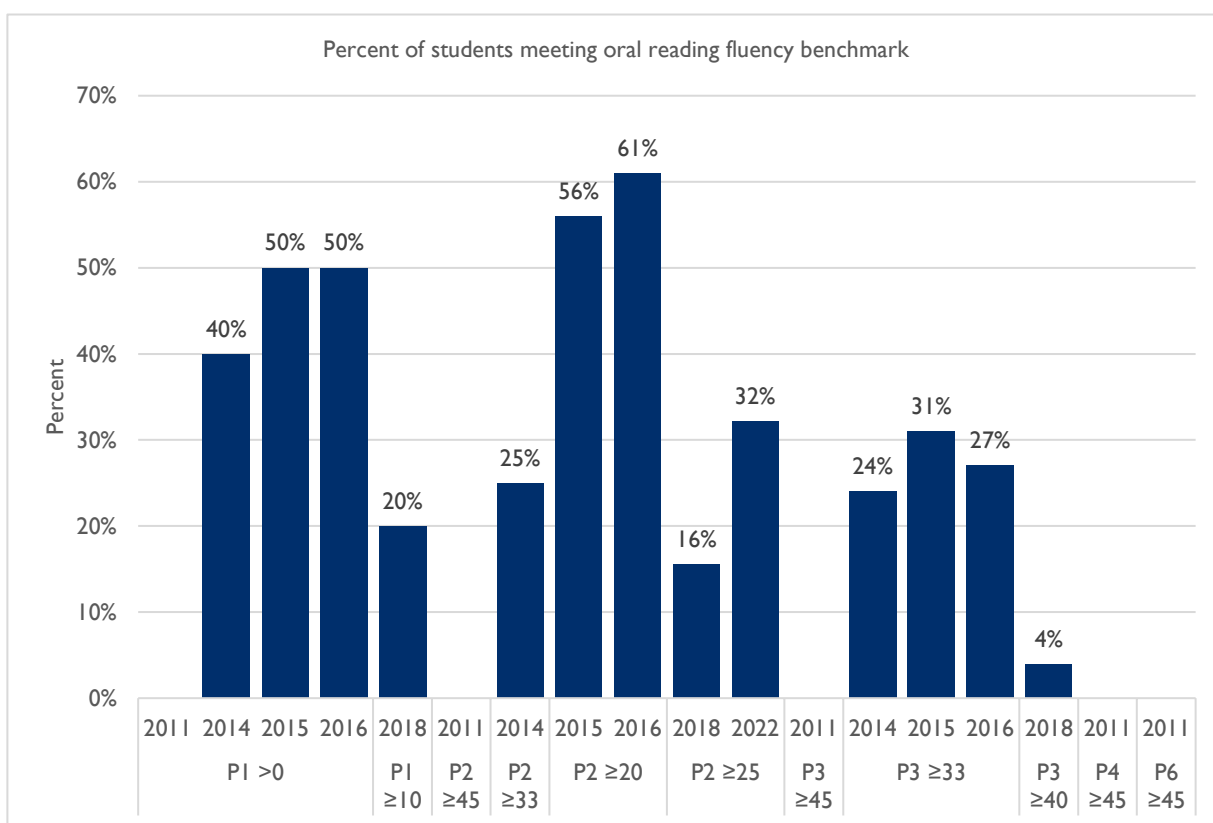
Description: *This graph shows the percentage of students, by grade level and year, passing the oral reading fluency (ORF) benchmark. The benchmarks are included in the x-axis labels and change with time. P1 and P3 benchmarks are constant from 2014 to 2016 and therefore comparable to one another. The percentages are better, for both grades, when comparing 2014 to 2016 values..* (**Source**: *EGRA reports*)

3.1.5.4   EGRA READING COMPREHENSION (RC)

Students who were able to read at least one word correctly, as shown in Figure 19, were given the opportunity to answer the five reading comprehension questions. If a student could not read the passage, they were recorded as zero scorers on reading comprehension (answered 0 of 5 questions correctly). The general trends show that students in higher grades can answer more questions correctly than lower-grade students. Additionally, each year, students in any given grade level generally answered more questions correctly than their predecessors.

Figure 19. Average percent of reading comprehension questions answered correctly
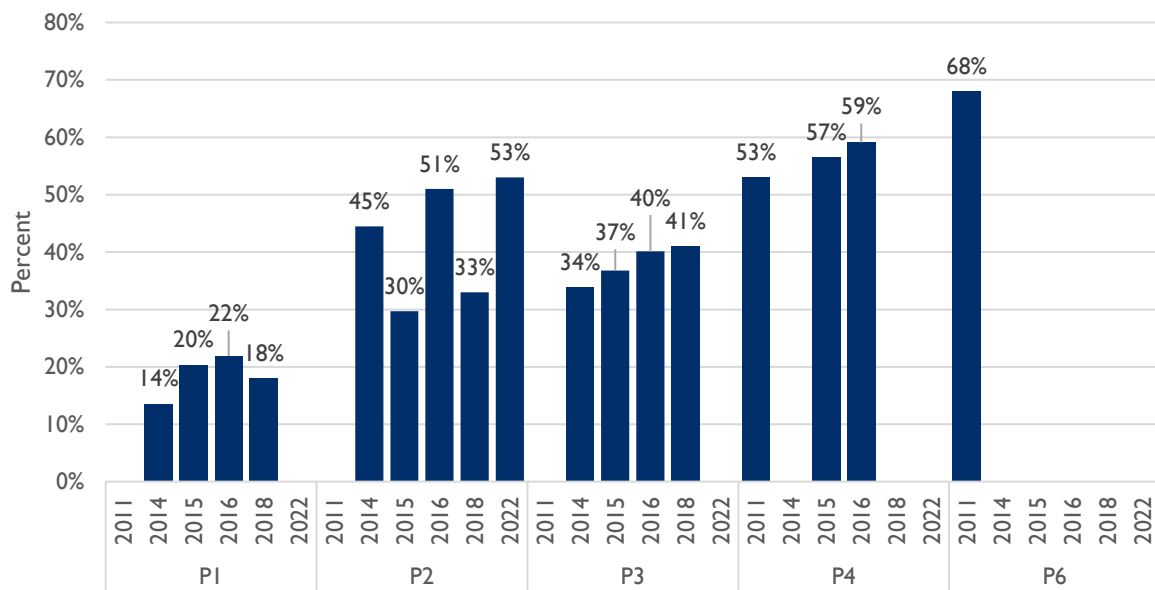
*Description: The higher the grade, the greater the percentage of questions answered correctly. Each year, students within any given grade appear to have scored higher than their predecessors (**Source**: ((EDC), 2016), ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), ((RTI), 2012), (Chemonics, 2018), (Chemonics, 2021), (FHI360, 2022)).*

Out of all P2 students, 38% answered zero reading comprehension questions correctly in 2014. This worsened to 50% zero scores in 2018, but improved again to 26% zero scores in 2022. The percentage of students who answered zero reading comprehension questions correctly decreased as grade levels increased per Figure 20.

Figure 20. Percent of students answering zero reading comprehension questions correctly
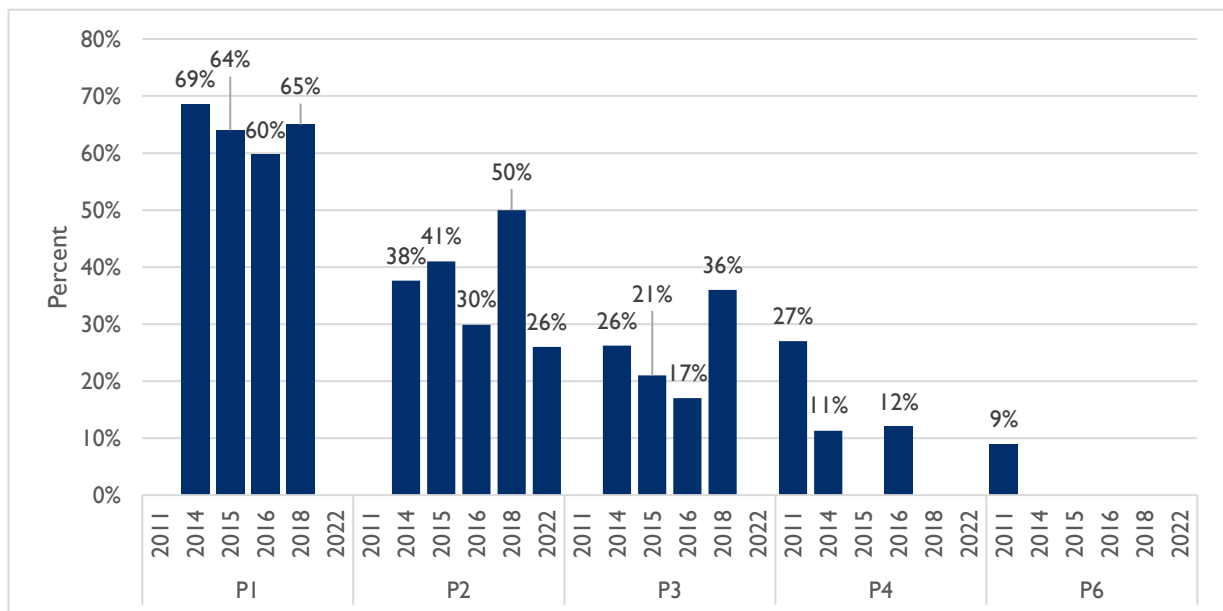
*Description: The higher the grade, the greater the proportion of students who can answer at least one reading comprehension question correctly. (**Source**: ((EDC), 2016), ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), ((RTI), 2012), (Chemonics, 2018), (Chemonics, 2021), (FHI360, 2022)).*

Reading proficiency benchmarks have changed over the years. For example, from 2014-2016, P2 students needed to answer 80% of the reading comprehension questions correctly (4 out of 5) to be considered grade-level proficient. In 2018, this threshold was reduced to 60% correct. Despite this benchmark decrease in 2018, the percent of P2 students demonstrating reading comprehension proficiency (36%) was similar in 2016 and 2018.

Figure 21: Percent of students meeting Reading Comprehension proficiency benchmarks
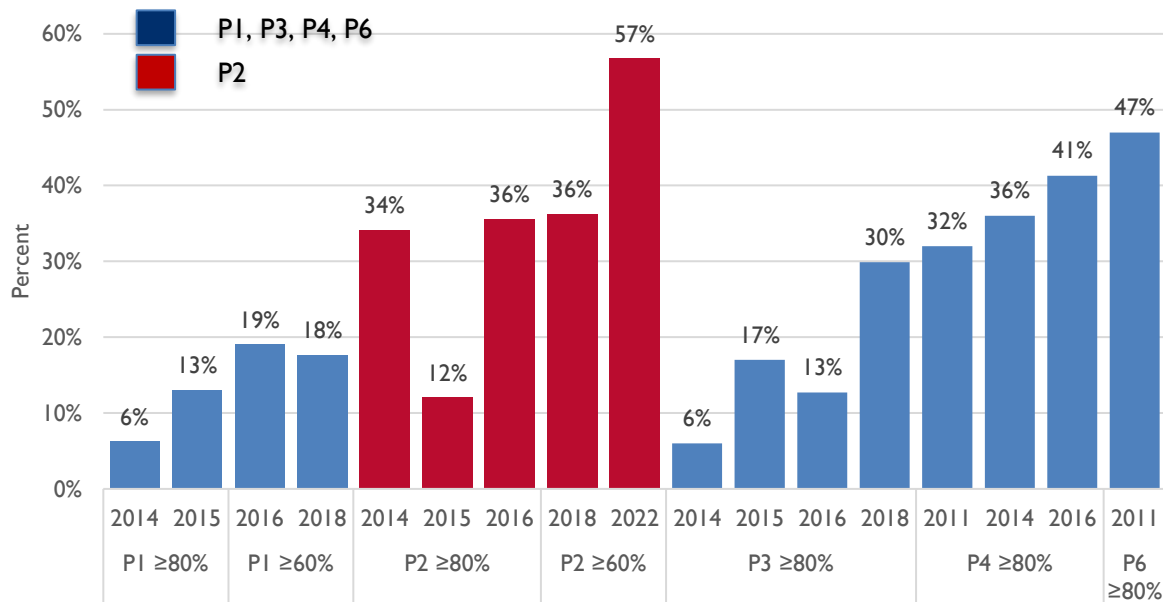
Description: *Reading comprehension proficiency benchmarks for P1 and P2 changed from 80% correct to 60% correct during the period under study. Taking this change into account, the overall percentage of pupils demonstrating reading comprehension proficiency has generally improved over the years.* (**Source**: *((EDC), 2016), ((EDC), 2014), ((EDC), 2016), ((EDC), 2017), ((RTI), 2012), (Chemonics, 2018), (Chemonics, 2021), (FHI360, 2022))*).

The following chart re-examines the historical data to focus on the percentage of all students (non-readers included) who responded correctly to at least 3 of 5 reading comprehension questions. This threshold of 60% correct answers matches the current proficiency benchmark for P2, allowing for clearer comparison over time.

Figure 22: Percent of students meeting Reading Comprehension proficiency benchmarks
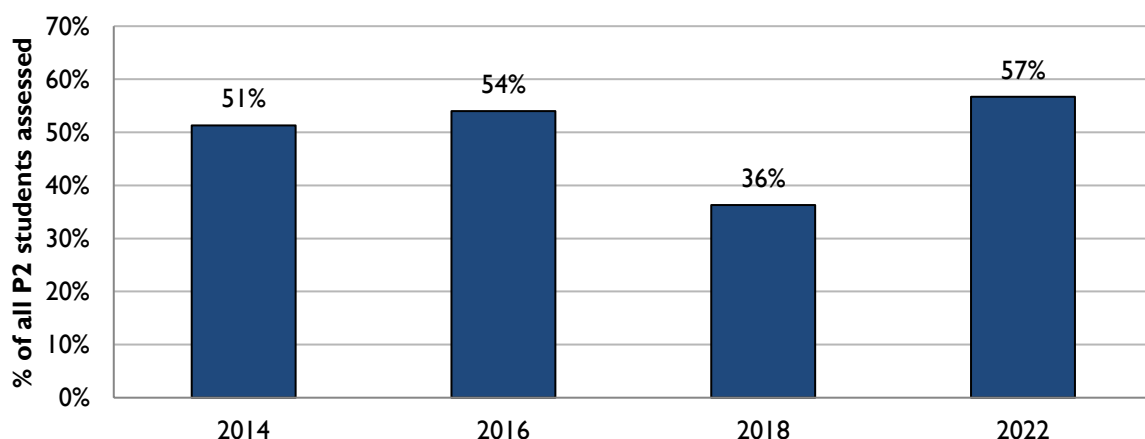
Description: *Percent of all students responding correctly to at least 60% of reading comprehension questions.* *(Source:* EDC, 2014, EDC, 2016, Chemonics 2018, FHI 360, 2022). Note that this chart excludes the 2015 L3 midline, which used a very different P2 passage that was found to be much more difficult, including an unfamiliar word and concept (*ibidukikije,* "environment") and which resulted in unusually low scores; subsequent EGRAs no longer used this reading comprehension passage.

3.1.6 SUMMARY OF FINDINGS

Overall, learning outcomes show a trend of improvement over the years in which USAID has been implementing basic education activities.

- On-time completion of primary school increased from just 28% of the 2010 cohort to 45% of the 2015 cohort (those completing primary school on time in 2021).

- The percentage of P2 nonreaders (those with ORF zero scores) reduced from 33% in 2014 to 20% in 2022, albeit with an unexplained spike up to 47% in 2018.

- Finally, the percentage of pupils responding correctly to at least one reading comprehension question increased from 62% in 2014 to 74% in 2022, and those passing the current proficiency benchmark (at least 3 out of 5 questions correct) increased from 51% to 57%.

The relatively lower performance in 2018, relative to 2014 and 2022, may be due to the larger sample size included that year, in comparison to the 2014 study—although other possible explanations still require investigation.

Factors that contributed to these improvements, and obstacles to further progress, are discussed in the following section.

4 DISCUSSION

The DISCUSSION section contains some analysis of the findingsaddressing the second and third learning questions, which focus on successful strategies and obstacles to implementation. The content of both questions is organized by according to the five evaluation framework categories.

4.1 USAID LEARNING QUESTION 2: WHAT ARE THE MAJOR LESSONS LEARNED AND SUCCESSFUL STRATEGIES THAT CONTRIBUTED TO THOSE ACHIEVEMENTS?

A number of strategies implemented since 2011 by the USAID basic education activities appear to have supported meaningful improvements in the system.

4.1.1 TEACHER SKILLS

L3 reports provided the context in which their Activity was implemented along with practical suggestions for how to improve the systems of teacher skills building and skills maintenance. They mentioned using Teacher Training College (TTC) tutors to provide in-service training (IST) as an effective method for meeting ongoing skills building for current teachers. This technique has the added benefit of improving the knowledge base and disposition of resource materials for TTC tutors to use in the PST classrooms. Soma Umenye reiterated the utility of this L3 approach.

Despite teachers leaving their classrooms to participate in IST and 71 percent of head teachers citing the lack of time to implement Soma Umenye's professional development model, Chemonics recommends it as an effective means by which teachers can maintain and develop skills. The approach should be revisited and assessed against a less time-intensive proposition. The current Tunoze Gusoma activity has, in fact, reduced centralized IST approaches in favor of school-based communities of practice and blended online/in-person continuous professional development with structured modules. However, ensuring that teachers have time to participate in such school-based programs is also a challenge.

Both L3 and Soma Umenye Activities used technologies to reinforce teacher skills. Technologies were used to varying degrees and hold promise for future skills-building interventions, which are cost effective and can be sustained by the GOR. It would be useful to have a clear picture of which technologies are used the most and why. Likewise, technologies that are unpopular should be discontinued.

4.1.2 INSTRUCTIONAL AND LEARNING MATERIALS

Rwanda went from a paucity of instructional and learning materials in 2010 to one Kinyarwanda textbook per P1 to P3 student by 2015 (Lynd, 2010). L3 parlayed materials development experience into support for the 2013 REB, UNICEF, and DFID reading curriculum reform. The content of the resulting materials follows the April 2015 REB curriculum and modern pedagogical methods.

In addition to contributing to REB curriculum systems, IPs worked through the private sector to develop stories and artistic works using locally relevant characters and relatable situations. The demand for printing strengthened the local book printing industry.

Ninety-seven (97) percent of teachers surveyed by EDC ((EDC), 2017) and 94 percent of teachers surveyed by EdIntersect (EdIntersect, 2020) reported using teachers' guides in their classrooms. These percentages exceed the proportion of teachers observed using materials but do show a high level of familiarity with the materials.

L3 recommended transitioning to English in P6 or later, REB developing scripted teacher guides, and school management maintaining libraries where students can check out books. The latter two L3 recommendations were addressed through the Soma Umenye and Mureke Dusome Activities. Transitioning to English in P6 is discussed in Section 4.2.1.

4.1.3 EDUCATION MANAGEMENT SYSTEM

L3 and Soma Umenye used different approaches to strengthening the educational management system. Both provided qualitative evidence that their approaches put systems into place which encouraged good management practices. L3 strengthened the central system by focusing on generating and managing data upon which student performance could be assessed. Soma Umenye institutionalized a system of teacher oversight tools and methods.

Working with SGACs to address low teacher morale was reportedly a very successful activity. A refresher of the L3 SGAC training could be reviewed for inclusion in future Activities.

4.1.4 COMMUNITY SUPPORT

Increased community support for literacy and education appears to have had the most impact on school participation of the four types of interventions. Enrollment appears to have increased after sensitization campaigns touting the importance of literacy and education with messages on positive parenting practices to support children, home-community-school partnerships, and children's access to accessible and high-quality educational content and materials at home.

Home and community support also strongly impacted learning outcomes. The L3 finding of higher reading assessment scores for those students whose caregivers checked their homework is a proxy indicator for level of caregiver involvement. A different, but equally telling proxy indicators for caregiver involvement, tardiness and absenteeism, were analyzed by EdIntersect. Caregivers, presumably, influence school attendance. Those students who were late the days before the survey or absent during the week preceding the survey had lower reading assessment scores than those who had perfect attendance.

While different indicators were used to measure caregiver involvement, both provided the same result. Caregiver support, whether checking homework or getting children to school, greatly improved students' abilities to test well in reading.

4.1.5 IMPROVED LEARNING OUTCOMES

4.1.5.1 STUDENT ENROLLMENT

The high student enrollment levels are a success of the current education system in Rwanda. Ninety-nine (99) percent of school-age children are enrolled in school. In Figure 23 we observe that 643,000 students were enrolled in P1 in 2010. In a successful education system, most students would have enrolled in P2 the following year, 2011—but there was a significant decrease in the number of students enrolled in P2 in 2011. The loss was due to repetition and dropping out of school. We used this same logic to follow students to P6 in 2015. Seventy-two (72) percent of students (69 percent for females and 75 percent for males) were lost to repetition and dropping out between P1 and P6.

Figure 23. Number of students enrolled in P1 in 2010 following cohort to P6 in 2015
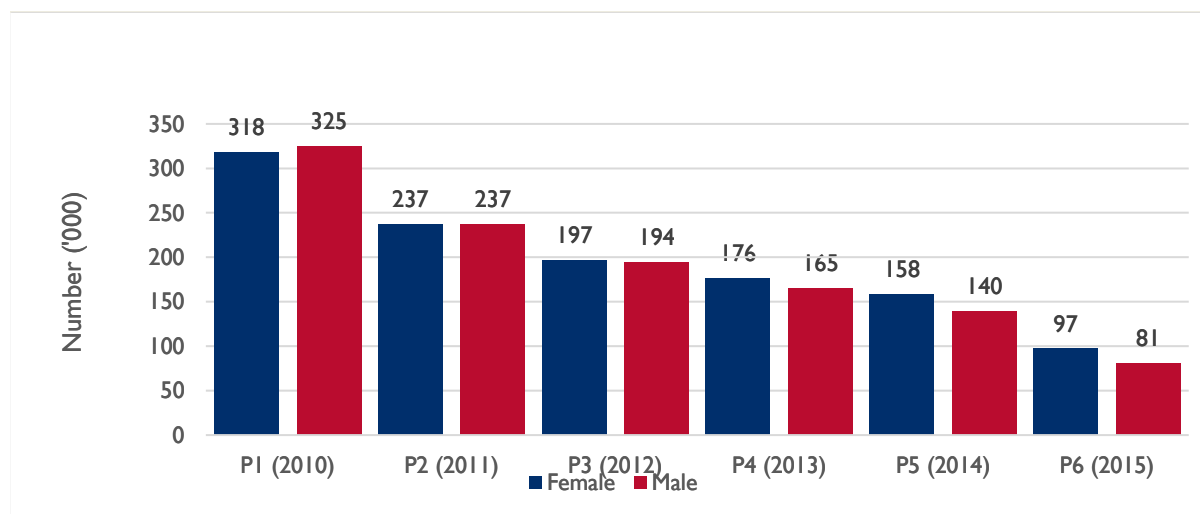
Description: Approximately 643,000 students started grade primary 1 (P1) in 2010. The number of students decreased each year. Students were lost due to repeating the same grade or dropping out of school. In the 2020/2021 school year, the P6 class size was 28% the size of the P1 clas in 2010. (**Sources**: MINEDUC Statistical Yearbooks)

In Figure 24, we observe that 640,000 students were enrolled in P1 in 2015, close to the same number of students enrolled in P1 in 2010. We followed the P1 class of 2015 to P6 in 2020. The proportion of students lost to repetition and dropping out of school was 55 percent (50 percent for females and 59 percent for males). The P6 class of 2015 contained 178,000 students. The P6 class of 2020 contained 288,000 students.

Figure 24. Number of students enrolled in P1 in 2015 following cohort to P6 in 2020
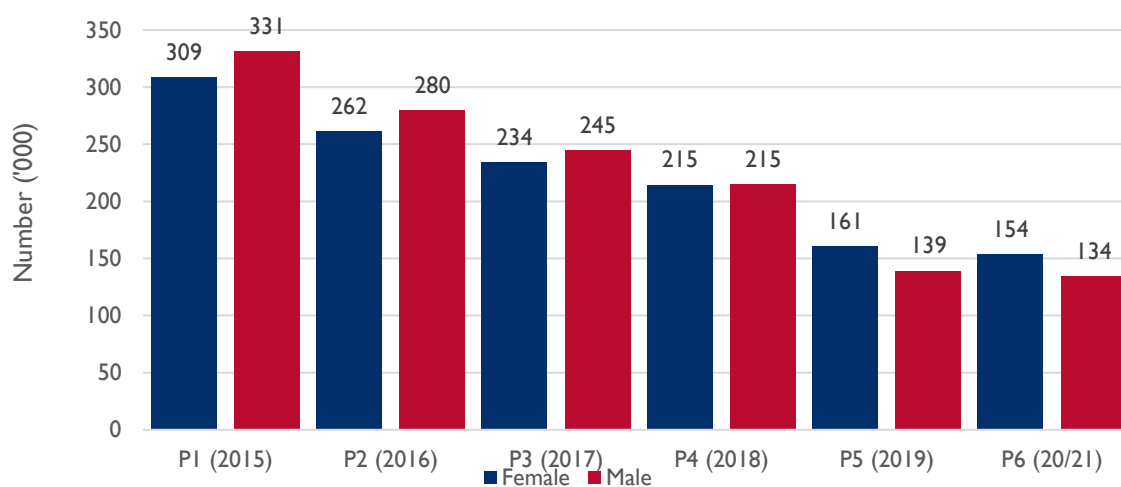
Description: *Approximately 640,000 students started grade primary 1 (P1) in 2015. The number of students decreased each year. Students were lost due to repeating the same grade or dropping out of school. In the 2020/2021 school year, the P6 class size was 45% the size of the P1 clas in 2015. (**Sources**: MINEDUC Statistical Yearbooks)*

These data show a huge gain in retention after L3 had been working in the four intervention areas for four years, and Soma Umenye and Mureke Dusome continued similar efforts. Activities follow the evidence that shows learning to read within the first three years of schooling vastly improves graduation rates. School graduation also improves financial well-being.

While there are many development partners involved in strengthening teaching and learning processes, and donor funding accounted for less than one-fourth of the education budget, USAID interventions directly contributed to students staying in school, especially during primary school.

Closer examination of number of enrolled students in P1 to P6, over 6 years give us an indication of how retention changed after sustained investments by USAID and others. In 2015, 28% of student starting P1 in 2010 enrolled in P6. (f = 31%, m = 25%) In 2020, 45% of student starting P1 in 2015 enrolled in P6. (f = 50%, m = 41%). After USAID investments during L3 [2011-2016] and sustained support in the education sector through Soma Umenye and Mureke Dusome [2016-2021] retention rates improved. This may be related to increased teachers' competencies and mobilization campaigns at local levels.

Figure 25. Comparison of Retention of students enrolled in 2010 vs 2015
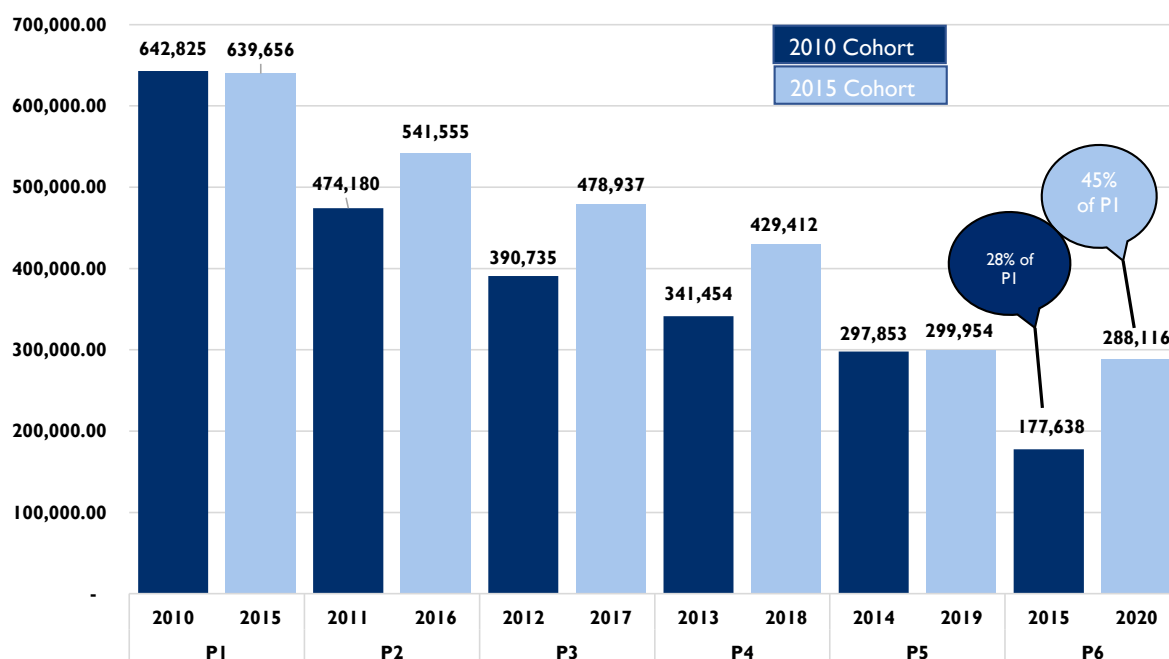
Description: This graph contains a side-by-side portrayal of the previous two graphs. It shows that a similar number of students started P1 in 2010 and 2015. Between P1 an P6, students were lost due to repeating the same grade or dropping out of school. In this graph it is easy to see that retention was better between 2015 and 2020 than between 2010 and 2015. In 2020, the number of P6 students exceeded the number of 2015 P6 students by more than 100,000. (*Sources*: MINEDUC Statistical Yearbooks)

4.1.5.2 PROMOTION, REPETITION, AND DROPOUT RATES

In interpreting promotion, repetition, and dropout rates, keep in mind that there are a larger number of children in early primary, grades 1 to 3, than in upper primary, grades 4 to 6. This means that the large number of children in lower primary school influences the statistics more than the smaller number of children in upper primary. We can cautiously conclude that increases in overall primary school promotion rates between 2013 and 2018 included increases for lower primary school grades. USAID-funded Activities most likely contributed to this rise in promotion rates over time.

4.1.5.3 EGRA ORAL READING FLUENCY (ORF) AND READING COMPREHENSION (RC)

The average number of words read aloud correctly per minute was measured by the L3 Activity between 2014 and 2016. These three numbers can be compared to each other and show modest increases in average for each grade, over time, despite some setbacks. This would indicate that teachers are doing a better job of building students' literacy skills, which could be attributed to the large USAID investments in pre-service and in-service teacher training and other supports to continuing professional development. Improvements could also be due to more appropriate materials for students. Caretakers and community volunteers reading more with children outside of the classroom may also contribute to students being able to read more.

4.2 USAID LEARNING QUESTION 3: WHAT HAVE BEEN THE MAJOR OBSTACLES STANDING IN THE WAY OF FURTHER PROGRESS?

Despite the strength and significance of USAID's investments in basic education, obstacles still remain.

4.2.1 TEACHER SKILLS

Several studies presented shortcomings in the systems used to develop and maintain teacher skills. A 2010 education assessment discussed the quality of instructional practices at TTCs as an impediment to qualified teachers. The situation is perpetuated because most college teachers do not have experience teaching in primary

schools and have had little to no specialized training on how to instruct teachers (Lynd, 2010). A 2014 study showed that the education system in Rwanda was disjointed in that different branches of government, with different but related responsibilities, had no coordination mechanisms. For example, district performance contracts (*Imihigo*) focused on improving quality through building schools and counting teacher credentials— whereas school headmasters would need teachers with teaching skills, not just credentials. Another example is that REB and the College of Education were not coordinating IST and PST, respectively (Honeyman, 2014).

L3 asked teachers why it is difficult to teach reading. They mentioned several reasons which related to materials, management, and community support. Soma Umenye's final report stated that 78 percent of teachers demonstrated essential skills in the teaching of reading ((CHEM), 2021). This may mean that most teachers already have the requisite skills to be effective. As teachers did not mention teacher skills being a challenge to teaching reading, and Soma Umenye's final report shows that most teachers have teaching skills, it would be helpful to understand: 1) the need for teacher training from the perspective of the teachers and their students and 2) how teacher training needs have changed from the 2010 and 2015 studies cited above. A study, such as that of the UK Aid's REAP that showed little evidence that the teacher training had been transferred into the classroom, would be beneficial to know where to focus teacher training resources (Lynd, 2010).

The challenges listed by teachers continues to plague primary school classrooms. Activities could develop and roll out pedagogical methods which cater to different reading levels in the same classroom or help schools to develop systems to group same-level students into reading classes, regardless of the grade level in which they are enrolled.

Moving forward, the shift from Kinyarwanda to English as the reading language will be quite challenging. Lessons can be learned from the L3 project, which recommended postponing the introduction of English to P6 based on their experience and the literature. During the L3 project, P4 teachers had a difficult time teaching the language to others. Before shifting to English as the primary reading language, it would be helpful to gauge the English language levels of primary school teachers. The current GOR policy uses English as the medium of instruction for all levels of the education system and all subjects, except the Kinyarwanda subject which remains the focus subject for early literacy instruction. The L3 recommendation to transition from Kinyarwanda to English in P6 or later occurred as a result of their experience in preparing P4 teachers to teach English reading and on studies that show that learning to read in one's mother tongue for four to five years results in better student performance ((EDC), National Fluency Assessment of Rwandan Schools Midline Report, 2016). Rwanda may opt to pilot the P1 English program or do more research on what is best for their students' reading given the literature and teacher's weak English language skills.

Problem analyses mention teacher retention as a challenge to building and maintaining skilled teachers. In 2010, 40 percent of primary and secondary school teachers had fewer than five years of experience (Lynd, 2010). Teacher retention and/or turnover statistics were not mentioned. It is therefore assumed that the size of the problem is unknown. This challenge, which was revealed in passing, has broad-based implications for the sustainability and resource requirements of all teacher skills building interventions. To best plan for future PSTs and ISTs, it is recommended to measure and analyze teacher turnover and retention.

4.2.2 INSTRUCTIONAL AND LEARNING MATERIALS

A greater number of teachers report using materials than are observed using the materials. Before more resources are used to develop additional materials, it would be helpful to understand why materials are and are not being used. Future programs should address utilization before production of new materials.

The survival rate of books varies by year. Books may not survive due to loss or disrepair. The lowest reported rate was by the Soma Umenye Activity in 2021 of 46 percent for P1 textbooks ((CHEM), 2021). The same Activity reported a P1 survival textbook rate in 2019 of 81 percent ((CHEM), 2021). These statistics show that funding is required to replace books regularly. This has historically been a challenge for schools as they did not always use money allocated for books to buy books, when schools had their choice of privately-produced materials, and more recently the central government has not been regularly procuring and distributing textbooks.

While students each have their own textbook, supplementary reading materials have been problematic. In 2018 Soma Umenye found that 35.0 percent of teachers reported that pupils borrowed books to take home the previous week and teachers checked out books in 14.7 percent of classrooms (EdIntersect, 2020). The low checkout rate of books may be due to a 2010 findings where "teachers may be asked to be the guarantor for lending out school books, making teachers reluctant to give books to their students in case students lose or damage them and teachers are required to pay for replacements" (Honeyman, 2014).

4.2.3 EDUCATIONAL MANAGEMENT SYSTEM

From a systems perspective, it was noted in a 2015 study that there is a disconnect between different levels of the management system. For example, IST is under the purview of REB and Sector Education Officers (SEOs). The two institutions did not communicate or coordinate. This poses challenges with implementation when REB is tasked with ensuring that MINEDUC IST policies are implemented while SEOs directly supervise schools' ISTs (Honeyman, 2014). It would be useful to ensure that all levels of the management system are coordinating.

The Activities mentioned that teachers felt their workloads were excessively burdensome. The same was not discussed for school administrators. Soma Umenye did talk about the lack of resources at the Cell level of government administration and how they did not have the money or transportation to oversee and manage schools. It is useful to review management burdens for school administrators and how they have changed over time. Looking at Table 5, we see that the number of administrators increased as did the number of schools, teachers, and students. It is worth noting that administrators' responsibilities grew between 2017 and 2020. The average number of schools grew slightly from 1.23 to 1.27, but the average number of teachers increased by three (17.82 to 20.82) for each administrator. The average number of students they were responsible for, however, decreased from 1,089 in 2017 to 937 in 2020/2021.

Table 5. Ratios of students and schools per administrator

Indicators	2017	2020/2021
Number of primary school administrators	**2,333**	**2,914**
Female	857	1,106
Male	1,476	1,808
Number of primary schools	**2,877**	**3,691**
Private	378	497
Government-aided	1,774	1,890
Public	725	1,304
Number of primary school teachers	**41,573**	**60,666**
Female	22,675	34,999
Male	18,898	25,667
Number of primary school students	**2,540,374**	**2,729,116**
Female	1,267,532	1,359,094
Male	1,272,842	1,370,022
Administrator ratios		
Primary schools/Administrator	1.23	1.27
Primary school teachers/Administrator	17.82	20.82
Primary school students/Administrator	1,089	937

Description: *The total number of primary school administrators grew from 2,333 in 2017 to 2,914 in 2020/2021. On average, administrators' workloads increased in that they were responsible for more schools and more teachers* (MINEDUC-NISR, 2021).

Activities should take increased workloads into consideration when programming the level of engagement with school administrators. Creating systems which help to manage increasing workloads and supervisory responsibilities would be welcomed by leaders.

L3 and Soma Umenye put considerable effort into creating quality control standards for how 1) reading is taught, 2) reading teachers are supervised, 3) student achievements are assessed, and 4) all of this information is managed and shared. These standards should be publicly available on the REB website so that all interested parties from administrators to teachers to parents can access them.

4.2.4 COMMUNITY SUPPORT

The success of the community support interventions presents an opportunity to include messages on remaining barriers to literacy success, as identified by teachers and community members. These messages could: 1) continue stressing the importance of parental involvement in children's education and exposure to literacy from an early age; 2) add messages about the importance of good nutrition, perhaps coordinating with nutrition programs to align concepts, and 3) stress the need for regular attendance and coming to school on time. As demonstrated by the two quotes below, poor attendance is an ongoing problem for educators.

> "Since primary education is compulsory in Rwanda, local education authorities are pressuring those families to still send their children to school, but those children may have irregular attendance, a much higher risk of grade repetition, and lack of support for education at home."
> ~ L3 Eval 2014 Baseline, Dec 2014

> "When head teachers were asked about the challenges their schools faced, two of the main challenges listed included pupil absenteeism or tardiness (95 percent) and pupils having to walk long distances to school (69.3 percent)" (Chemonics, Rwanda Early Grade Reading Assessment Baseline Report , 2020)

Community support indicators differed between projects. The changing indicator titles and tabulation methods do not show levels of caregiver support to children's literacy in the same way from L3 to Mureke Dusome. L3 shared proportions of caregivers being progressively more actively supporting literacy from passive support (see caregiver reading) to active support (stories read to pupil at home) to highly engaged support (caregiver checks homework). Mureke Dusome replaced the three L3 indicators with one (caregiver support literacy learning at home) which missed the opportunity to understand dosage of parental support.

The inconsistent measures reported in annual and evaluation reports miss an opportunity to showcase the incredible work being undertaken at the community level and the impact it has on getting children to school and studying. Stronger relationships between school employees and parents seems to have positive impacts on children's attendance and engagement in school. Providing empirical evidence could be possible through a case-control study since community support programs are not found in all 30 districts and not at all schools.

4.2.5 IMPROVED LEARNING OUTCOMES

4.2.5.1 STUDENT ENROLLMENT

Student enrollment has increased both in terms of real numbers and proportions of children. This success should be celebrated. At the same time, irregular attendance, which is not reported in the government's statistical yearbooks, explains poor reading performance data. Missing some or all of a school day has been more problematic for girls and rural students. "A study carried out by the Ministry in 2008 found that though girls had initially high enrollment rates, they also had higher dropout and lower attendance rates than boys, especially in food-insecure areas" (Lynd, 2010). "A 2006 report found that rural students were 37 percent less likely to complete primary school than their urban peers, and that completion was 72 percentage points higher for high income than low-income groups" (Lynd, 2010).

The L3 endline report stated that "between 13 and 20 percent of P1–P3 pupils reported being late to school the day before data collection, while 40 to 50 percent reported being absent from school at least one day in the previous week. Tardiness and absenteeism were uniformly negatively associated with reading performance (both fluency and comprehension)" (EdIntersect, 2020).

Soma Umenye's final report stated that 28.5 percent of planned instructional time is lost due to teacher and student absence and tardiness. Now that enrollment numbers are stellar, more efforts can be directed toward improving attendance.

4.2.5.2 PROMOTION, REPETITION, AND DROPOUT RATES

Unfortunately, promotion, repetition, and dropout rates are not available for each grade level. Looking at enrollment by 2010 and 2015 cohorts, it appears that the higher the grade level, the lower the promotion rate. Repetition and dropout rates spiked in 2013. In 2018 repetition rates decreased while dropout rates increased. In recent years, the data show that children drop out of school rather than repeating a grade when they were not promoted. These data reinforce the need for community outreach and re-establishing ties between schools and communities that were lost during the COVID-19 sequestration between 2019 and 2022.

4.2.5.3 EGRA ORAL READING FLUENCY (ORF) AND READING COMPREHENSION (RC)

In 2022, 20 percent of P2 students could not read one word even though the text was appropriate for the grade level. It would be helpful to characterize the demographics of students unable to read. This may help to target special reading interventions for the non-readers.

The results of the EGRA assessments caused the assessors to question the level of standardization over time and the comparability of data across years. During discussions with the assessment designers and data analysts from FHI360, Chemonics, and EdIntersect, it was established that there were some significant differences in the assessment content and methods, depending on who administered the EGRA. Exams were developed and implemented by RTI (2011), EDC (2014, 2015, 2016), Chemonics/EdIntersect (2018), and FHI 360 (2022). The FHI 360 (2022) and EdIntersect (2018) assessment results were created to be comparable to each other but used slightly different cross-sectional sampling methods. The three EDC assessment results were created to be comparable to each other and used the same panel sample of schools for all three years. The RTI exam tested P4 and P6 students, outside the targeted grades, so we will not include that assessment in our discussion.

Similarities and differences between the EDC, EdIntersect, and FHI 360 EGRA results are provided in Table 6. All reports included cursory descriptions of study design, sampling methods, and data analysis. There was not enough information to replicate the studies and some key information is missing from the EGRA reports. Empty cells in the table designate missing information.

Table 6 Summary of EGRA methods by Activity

	Component / Activity	L3 (EDC)	Soma Umenye (Chemonics)	Tunoze Gusoma FHI 360
	Year	2014, 2015, 2016	2018	2022
1.	Sampling framework	P1, P2, P3, P4 students	P1, P2, P3 students	P2 students
2.	Level of population representation	**Nationally representative** sample, public and government-aided schools, same sample panel used in all 3 years	Nationally representative sample, public and government-aided schools	Nationally representative sample, public and government-aided schools
3.	Designing indicators	ORF and math achievement	Average % of words read correctly and RC % meeting benchmark	(Not specified)
4.	Sample size calculation	Expected change	Point in time estimate	(Not specified)
5.	Sampling method	Three-stage stratified random sampling a) Randomly sampled 2 **schools** from each of Rwanda's 30 Districts b) Randomly selected **1 P1, P2, and P3 classroom** within each of the 60 schools c) Randomly selected **1799 pupils**, 5 boys and 5 girls from P1, P2, and P3 per class. This is an average of 600 students per grade assessed.	Four-stage stratified random sampling a) Randomly selected **155 Sectors** and stratified by urban/rural and Kinyarwanda/non-Kinyarwanda b) Randomly selected 1 school per Sector for a total of **155 schools**. Randomly selected additional schools from each region c) Randomly selected **1 P1, P2, and P3 classroom** within the schools d) Randomly selected 5 boys and 5 girls from each P1, P2, and P3 classroom. A total of 30 pupils were randomly selected at	Two-stage random sampling a) Randomly sampled **220 schools** from all 3064 public and government-aided schools from 5 provinces b) Randomly selected **10 students from P2 in each school**. This resulted in a total of 2131 students in the P2 grade (the only grade assessed).

Component / Activity	L3 (EDC)	Soma Umenye (Chemonics)	Tunoze Gusoma FHI 360
		each school. A total of **4650 pupils** were included in the sample. This is an average of 1550 students per grade assessed.	
6. Time of data collection	End of school year (September under the old school calendar)	End of school year (September under the old school calendar)	End of school year (June under the current school calendar)
7. Data treatments	Sampling weights were applied	Sampling weights were applied.	Sampling weights were applied.

Description: This table imparts basic descriptions of how the reading assessments were conducted between 2014 and 2022. Blank cells indicate information not found by the study team. The only similarity in methods is that all assessments were administered at the end of the school year. We notice fundamental differences in sampling methods. Sampling weights were also applied, but weighting criteria and procedures were not reported in detail. (Source: EGRA reports)

A deeper dive is required to understand the more technical details of the three studies' methodological approaches to design, sampling, and tabulation. For example, the description of statistical weighting procedures was very thin or completely missing in some cases. One project may have adjusted for differences in gender while another for location, or self-selection bias (students who chose to be absent on the day of the test versus those who chose to be present for the assessment). Because every partner used a different sampling approach, it would stand to reason that different weights were also applied.

In addition to employing different methods, the content of the assessments changed substantially between the 2014–2016 exams and the 2018–2022 exams. The 2018 assessment sought to create new proficiency benchmarks in line with 2019 curriculum changes. For subsequent EGRAs, detailed assessment protocols and analysis plans would help to ensure that standardized sampling methods and data treatments are being used. This standardization would ensure that indicator values could be interpreted in the same way each year.

Delving into the details of the aforementioned EGRA challenges is outside of the scope of this assignment. The study team has identified areas where further investigation could prove useful to those working in the basic education sector. This report simply draws the reader's attention to reasons why results should be interpreted differently for each study.

Indicator values in 2018 show discrepancies with the trend across other years, which generally show improvements in the proportion of students who can read. One reason for this is that the test was reengineered with new specifications in 2018. Another difference is in how the assessment was andministered. In 2014 through 2016, students were given one minute to read a paragraph aloud. In 2018 and 2022, proctors alowed students three minutes to read a paragraph of similar length. While the Oral Reading Fluency measure still focused on correct words per minute in all assessments, the longer reading time is likely to have influenced reading comprehension scores.

Implementers did not know why, in 2018, the average number of words read correctly was about half the average numbers of words read in all other years. Similarly, it was not clear why the percentage of zero scores (nonreaders) was much higher in 2018 than in other years. Possible explanations include: the much larger sample size in 2018 potentially more representative of national conditions; differences in indicator calculations; or simply the fact that new students and teachers enter the education system each year and gains one year cannot be guaranteed to be replicated with new cohorts of students. Overall, however, the uneven data suggests that further efforts are needed to standardize sampling and asessment methods to improve comparability over the years.

5 RECOMMENDATIONS

A general overarching recommendation is to **encourage future basic education programs to monitor and report on outcomes for each intermediate result**. The outcomes will help program managers to assess if approaches are effective in improving teacher skills, offering more accessible materials, providing appropriate leadership, and optimally involving the community. These outcome measures can also strengthen the interpretation of the existing learning outcomes indicators.

5.1 TEACHER SKILLS

The L3 and Soma Umenye Activities both recommend Continuous Professional Development (CPD). L3 recommends that District CPD Committees coordinate and monitor regular CPD, ongoing teacher training be a part of maintaining teacher credentials, and a system be created to support the initiative. Soma Umenye recommends using communities of practice, coaching visits, and classroom assessments at school level.

The evaluators agree with the need to maintain and bolster professional skills. However, the depth and breadth of the skills building needs is unclear to the Evaluation Team. Before a comprehensive CPD program is designed, the evaluators recommend a greater understanding of skills building needs and delivery methods from the perspective of teachers, taking into consideration the move from Kinyarwanda to English as the primary reading language and teacher turnover/length of employment.

5.2 INSTRUCTIONAL AND LEARNING MATERIALS

An enormous number of resources have been invested in the design, development, production, and distribution of instructional and learning materials. Materials have been shown to have varying degrees of acceptance and usage. As few as half of surveyed teachers report using materials on a regular basis.

Evaluators recommend that before investing more money in materials development, past utilization should be understood to inform future promotional activities.

Future Activities should work with local government to create book replacement plans and develop feasible library standards so students can check out books unimpeded.

The Evaluation Team also strongly recommends additional research on how to continue offering strong literacy instruction in Kinyarwanda and better manage the transition to use of English in other subjects.

5.3 EDUCATION MANAGEMENT SYSTEM

Provide SGAC refresher training, which includes L3 soft skills of "sensitizing parents to visit their children in school, follow up on their children's progress and conduct in the classroom, communicate and collaborate with teachers, attend meetings, and implement projects that contribute to teachers' morale and wellbeing" ((EDC), 2016).

Create systems which help to school leaders to manage increasing workloads and supervisory responsibilities. L3 recommended that teacher IST should cover school promotion, repetition, and dropout policies.

Develop and roll out pedagogical methods which cater to different reading levels in the same classroom or help schools to develop systems to group same-level students into reading classes, regardless of the grade level in which they are enrolled.

Publicly share teaching, supervision, and testing standards on the REB website so that all interested parties from administrators to teachers to parents.

5.4 COMMUNITY SUPPORT

Ensure that messages provide information for community members which address the major barriers to literacy success, including irregular attendance and tardiness. Identify and use indicators that measure depth and breadth of caregiver support processes. Show which types of caregiver support help to improve literacy or intermediate results of literate students.

5.5 IMPROVED LEARNING OUTCOMES

The GOR's learning outcome measures of student enrollment, promotion, repetition, and dropout rates follow the same methods and indicator tabulation plans each year. The same cannot be said for the USAID-funded project's EGRA. The assessment tool should be usable by teachers so that they, and parents, can follow each child's performance and understand strengths and weaknesses. For this to occur, REB and Activities can work

together to develop Standard Operating Procedures (SOPs) which instruct teachers how to administer the tool, tabulate results, and share test scores. The SOPs should direct managers on how to aggregate data and to interpret aggregated results. Some of this work is already underway through Tunoze Gusoma's work on the Comprehensive Assessment Management Information System (CAMIS), and the LEGRA assessment for use by teachers. Understanding the data interpretation challenges mentioned in this report can help to strengthen the design of those systems and the training that underpins them.

5.5.1 STUDENT ENROLLMENT

Now that enrollment numbers are stellar, more efforts can be directed toward improving attendance and arriving to school on time.

5.5.2 PROMOTION, REPETITION, AND DROPOUT RATES

Continue community sensitization to encourage optimal enrollment and attendance practices which maximize promotions.

5.5.3 EGRA ORAL READING FLUENCY (ORF)

Develop multi-level reading methods for schools and/or classes which cater group different ages and levels together during the reading period, regardless of grade. This categorization would help to diminish the challenges faced by teachers whereby students in one classroom read at different levels and are of different ages.

5.5.4 EGRA READING COMPREHENSION (RC)

Clearly document EGRA methods of sampling, administration, data handling, indicator tabulation, statistical weighting, and reporting.

Investigate how student reading levels improved so dramatically between 2018 and 2021 and continue analyzing the impact of intermediary variables such as teacher behaviors and home practices over time.

Extend this study to include the current project midlines and endlines, as preparation for new designs in the future.

6 ANNEXES

6.1 REFLECTIONS ON THE SYSTEM-LEVEL INFLUENCES OF USAID RWANDA'S BASIC EDUCATION ACTIVITIES

During a presentation of these study results, in August 2023, technical experts who have been involved in these USAID activities as staff of implementing organizations and as government counterparts offered some additional insights regarding the system-level changes that USAID Rwanda's investments in basic education have influenced over the years. Their reflections are quoted below, lightly edited for clarity.

National Vision & Technical Leadership
- USAID Rwanda's investments have raised the profile/visibility of the importance of mother tongue literacy with policymakers, local researchers (including directly engaging them as trainers, material reviewers, etc), and local education officials at district and sector level. While Rwanda has shifted to English as the language of instruction, there is strong understanding at multiple levels of the value of learning to read in the language children know and understand best.
- Transformed Rwanda Basic Education Board (REB) staff into literacy experts and developed further national expertise in literacy through the high-level knowledge gained by dozens of project staff.
- Development of the *Soma Rwanda* (Rwanda Reads) coordination platform, co-chaired by USAID and the Ministry of Education with active participation from other government agencies, development partners, local organizations, and private sector stakeholders. Among other things, *Soma Rwanda* sponsors dozens of activities for National Literacy Month every September.

Curriculum and instructional materials
- The Literacy, Language and Learning (L3) Activity introduced the five core evidence-based reading and writing instruction principles in lower primary. These principles were incorporated into the Kinyarwanda competence-based curriculum that was developed in 2015.
- To accelerate early literacy acquisition, L3 advocated to include the teaching of common blends in Primary 1 (8 blends). In the previous curriculum, blends were not introduced until P2.
- Interactive audio program and literacy instructional videos initiated under L3 program as a way to boost teachers' knowledge and capacity to teach early grade literacy are still now being used during current Tunoze Gusoma trainings. The REB Audio Visual studio was established in 2011 with funding from USAID under L3, and has now been developed further through REB's own efforts, with state-of-the-art equipment, radio programming during COVID-19 school closures, and a YouTube channel.
- L3 also introduced Read Aloud Story book, and which became among the core instructional materials in addition to the traditional Teacher Guide and Student Textbook. Since then, the new curriculum includes a read aloud story at the beginning of each week to introduce the focus of the week (i.e. a new letter or blend) and is built based on the theme of the week in the curriculum.
- Soma Umenye built on the work of L3 and developed richer textbooks (increased the number of decodable stories), teacher guides (with a focus on the "I do, We do, You do" teaching methods) and read aloud story book for P1, P2 and P3. Those are now the only core Kinyarwanda instructional materials that are used in lower primary.
- Soma Umenye also introduced a classroom library in each P1, P2 and P3 classroom, building on the work of Save the Children's Advancing the Right to Read program in pilot areas. This, itself, contributed to shift in mindset as the common belief was that young children wouldn't easily read.
- Soma Umenye supported REB to develop the Kinyarwanda book levelling guidelines for Kinyarwanda, so that books can be targeted to children's developing reading levels. Tunoze Gusoma carried forward this effort by supporting REB to develop guidelines for Read Aloud Stories in pre-primary, and English levelled readers in lower primary.
- Tunoze Gusoma supported the development of the Social Emotional Learning Framework for all the schools and Social Emotional Learning objectives and activities have been integrated into literacy lessons in preprimary and lower primary.

Local Production and Availability of Teaching & Learning Materials
- USAID Rwanda, along with Save the Children and other stakeholders, supported the burgeoning of a local publishing industry in Rwanda, with over 30 publishers now developing Kinyarwanda-language content for children. USAID Rwanda's new activity, *Ibitabo Kuri Twese – Teaching & Learning Materials Market Systems Development*, is expected to further strengthen these private sector actors.

- USAID supported the creation of Andika Rwanda, a national children's story writing competition, a concept that has been adopted and carried forward by the Kigali Public Library
- Community mobile libraries were initiated under USAID and worked very well. Mureke Dusome built from those to establish permanent community libraries and reading clubs.

Teacher Continuous Professional Development (CPD) Framework
- L3 introduced the concept and framework of school mentorship and supported the development of the school-based Mentorship Program (SBMP). This was enhanced through the USAID MCOP project, and today mentorship structures are embedded in every school.
- Tunoze Gusoma supported the review of the SBMP Framework and finalization of a new framework, including early childhood education (ECE) mentors.
- Several USAID activities have supported REB to provide blended learning continuing professional development (CPD) for teachers.
- Tunoze Gusoma is supporting the development of a blended learning CPD approach with online and in-person components that will be used by REB and all other partners.
- The School Based Orientation program for new teachers initiated under Soma Umenye and now adopted by Tunoze Gusoma, is successful as a strategy to provide induction to new Kinyarwanda teachers and to deal with the issue of teacher turnover.

Assessment & Inspection
- Soma Umenye supported the development of Kinyarwanda benchmarks for reading fluency and comprehension for lower primary and this influenced the development of benchmarks for other subjects.
- Assessment of reading Fluency and reading comprehension, using one-on-one assessment of children, was integrated into the national Learning Assessment in Rwandan Schools (LARS).
- EGRA was adapted to LEGRA which is now an integral part of the comprehensive assessment and conducted at the end of each Term by all Kinyarwanda teachers in lower primary including private schools. LEGRA also uses EGRA's a one-on-one assessment method, ensuring that teachers are more aware of the skill level of each child despite continuing challenges with classroom overcrowding.
- Tunoze Gusoma has supported Rwanda's over 400 Sector Education Officers to repeatedly visit schools, including conducting inventories of available teaching and learning materials, and observing classrooms to check on the fidelity of implementation of effective teaching practices.

Inclusion
- Soma Umenye contributed to the development of the first Rwanda Sign Language Dictionary as well as the introduction and foundation around UDL principles.
- USAID has led the process of adapting the EGRA instrument for deaf and hard of hearing populations, and will soon adapt it for students who are blind as well, laying the groundwork for other national assessment systems to be made more accessible.

6.2 META-ANALYSIS CONCEPT: ASSESSING THE EFFECTIVENESS OF USAID/RWANDA PROGRAMS IN IMPROVING BASIC EDUCATION AND YOUTH AND WORKFORCE DEVELOPMENT IN RWANDA

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META-ANALYSIS CONCEPT: ASSESSING THE EFFECTIVENESS OF USAID/RWANDA PROGRAMS IN IMPROVING BASIC EDUCATION AND YOUTH AND WORKFORCE DEVELOPMENT IN RWANDA

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Submitted to:

USAID/Rwanda

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TABLE OF CONTENTS

ACRONYMS

CDCS	Country Development Cooperation Strategy
CLA	Collaboration, Learning, and Adapting
CML	Community Mobile Library
DDL	Development Data Library
DO	Development Objective
ECD	Early Childhood Development
EGRA	Early Grade Reading Assessment
GDP	Gross Domestic Product
GOR	Government of Rwanda
ILO	International Labor Organization
IP	Implementing Partner
KAP	Knowledge, Attitude, and Practice
L3	Literacy, Language and Learning Initiative
LARS	Learning Achievement in Rwanda Schools
P3	Primary 3
SME	Small to Medium Enterprise
TVET	Technical and Vocational Education Training
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
ZOI	Zone of Influence

lessons learned as well as barriers in implementing early-grade youth work force employment interventions. Specifically, this meta-analysis will:

1. Examine the contribution of USAID/Rwanda's investments and interventions to improving literacy rates.

2. Assess the contribution of USAID/Rwanda's investments and interventions to reducing youth under-/unemployment rates.

IV. RESEARCH QUESTIONS

In the effort to address the above two metadata analysis objectives, the following research questions will be answered using secondary data.

Basic Education

1. What progress has been made to date in improving early literacy (reading and writing) and educational outcomes, *e.g.,* enrollment, retention, completion, and transition rates?

2. To what extent have USAID/Rwanda investments and strategies in education contributed to increasing literacy skills?

   a. Does training teachers and equipping classrooms with learning materials contribute to improving early grade (1-3) literacy among boys and girls?

   b. To what extent does involving parents and community members more directly in education governance contribute to improving early grade (1-3) literacy among boys and girls?

   c. Do interventions that support reading outside of school and promote a culture of reading in the community improve early grade literacy?

   d. To what extent do interventions that address gender-related barriers to learning as well as the needs of children with disabilities contribute to equitable literacy?

Youth and WFD

1. What progress has been made to date in improving youth and WFD?

2. Have USAID/Rwanda investments and strategies in youth and WFD contributed to reducing youth underemployment?

   a. To what extent does providing youth with basic life skills, market-relevant work readiness training, tools, and knowledge encourage entrepreneurship?

   b. To what extent does improving the enabling environment for private-sector competitiveness improve youth employment?

   c. To what extent does strengthening the efforts of local youth-serving organizations improve youth WFD?

For both these areas, we will have two overarching research questions, namely:

3. What are the major lessons learned?

4. What have been the major obstacles?

V. METHODOLOGY

This meta-analysis proposes using findings from multiple program/project evaluations as well as government data to understand patterns of success and challenges affecting a range of interventions in education and youth WFD.

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For this meta-analysis, we will iteratively follow the next steps:

1. Develop analysis plan to shape the kind of findings that will emanate from the data analysis.

2. Collate, review, and analyze quantitative data from program performance indicators and other relevant metrics for the period of the current CDCS as listed in Table 2 below. This will address research questions **1 and 2 for both areas of interest.** Also, we will identify data collection methods for each of the research questions using the Meta-analysis "Getting to Answers" M as illustrated in the annexes.

3. Conduct a desk review of quantitative and qualitative data from assessments, evaluations, reports, and other documents in the Development Data Library (DDL), including Implementing Partner (IP) reports. This will address **all research questions.**

4. Conduct Key Informant Interviews (KIIs) with IPs and other stakeholders to provide additional data and insights to the metadata analysis findings.

LIMITATIONS

For this meta-analysis, we anticipate that the reliance on publicly available information, pre-existing evaluations, and GOR reports limits the opportunity to gather qualitative data, triangulate data streams, and validate findings. As a result, the findings may not be applicable to the universal context of Rwanda. However, this challenge will be mitigated by reviewing a broad range of information from different sources to triangulate and validate the information, where possible, to fully address local specificity. Also, the KIIs support the identification of additional data sources from people with firsthand information about the research questions.

Table 2: Potential data sources

	Basic Education	Youth and WFD
Types of Data	EGRA	Youth employment rates
	LARS	Employer satisfaction surveys
	Local Early Grade Reading Assessment	Skills gap studies
	Save the Children research on reading Knowledge, Attitude, and Practice (KAP)	IP produced studies and reports
	IP produced studies and reports	

While the above questions provide a broad framework for the meta-analysis, we recognize that multiple opportunities exist for in-depth analysis, depending on initial findings to provide outcome-level estimates.

VI. INTERVENTION

SCOPE

We will identify both published and unpublished studies and gray literature that describe and evaluate the national-level educational and youth and WFD outcomes in Rwanda between 2009 and 2021.

Specifically, this meta-analysis will also cover GOR interventions that aim to:

1. Improve early basic literacy.

2. Reduce youth under-/unemployment.

This meta-analysis will also assess:

1. The determinants for early literacy and youth underemployment/unemployment.

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2. The contribution of USAID/Rwanda investments in realizing literacy and WFD.

3. Whether variations exist between different demographics, including rural versus urban settings.

4. Lessons learned to date that will inform current and future programming, including *vis-à-vis* the questions listed in the annexes.

Geographically, this metadata analysis will cover the whole country, and data will be disaggregated between urban and rural areas. This will allow the assessment of the differentiated effectiveness of interventions to either rural or urban. The analysis will also cover the period from 2009 to 2021.

TIMELINE

The following timeline is subject to change based on discussions with the mission.

Task	Due
1. **Development and submission of concept to the Mission**	October 7, 2022
2. **Feedback and revision of the concept**	October 14, 2022
3. **Data extraction, meta-analysis, and synthesis of results**	October 31, 2022
4. **Submission of the draft report**	November 4, 2022
5. **Provision of feedback**	November 11, 2022
6. **Dissemination**	November 15, 2022
7. **Submission of the final report**	November 25, 2022

TARGETED GROUPS

For this meta-analysis, the primary target groups will be:

☐ Boys and girls in grades 1 to 3 of primary education

☐ Youth between 14 and 35 years of age

☐ However, we will also be looking at interventions that target intermediary groups who are part of the causal pathway—like Early Childhood Development (ECD) and activities that support self-employment for young people.

EXPECTED PRODUCTS

This assignment will establish progress made to date by USAID/Rwanda and other stakeholder investments in improving early literacy and youth and WFD, and will be presented in the following media:

● Two (2) separate reports (early literacy and youth and WFD)

● Highly visual briefs for specific target audiences

　　○ One-pager/two-pagers with infographics.

　　○ Executive summary versions of the reports (synthesized to a few pages) and/or technical briefing paper.

● PowerPoint presentations.

● Additional products to be considered in concept note, according to target audiences.

● Datasets for any future use.

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AUDIENCE ANALYSIS

This meta-analysis will generate outputs based on the following audiences, which will be reviewed based on discussions with the Mission.

Audience	Use
USAID Rwanda Education Office, and other technical offices—especially Economic Growth.	• Review and inform of current and future programs. • Support strategic changes in the design of field activities or to inform changes in Agency policy.
Implementing Partners (IPs)	• Program adaptation.
Government of Rwanda (GOR) agencies and working groups	• To inform GOR policy.
Development partners (UNICEF; World Bank; and Foreign, Commonwealth, and Development Office)	• Scale-up and replication of programs.

VII. ANNEXES

DO 2: LEARNING QUESTIONS

Learning Question 1: Who are the ≅2 percent of children who are not in school? What barriers prevent them from attending school?

Learning Question 2: What are the most effective instructional methods to support learners with disabilities in low-resource settings?

Learning Question 3: What are the existing successful referral pathways for identifying and supporting children with disabilities? How do schools interact with referral systems?

Learning Question 4: Do our investments in ECD (with nutrition, health) contribute to expected learning outcomes? Do they benefit all children equally, or are some children not being equally served?

Learning Question 5: What skills do children have when they enter grade 1 and how do skills vary among children according to gender and disability status? What implications does this have for USAID programming?

Learning Question 6: What is the level of socioemotional skills among teachers? What is the level of teachers' ability to support socioemotional skills development for their students?

Learning Question 7: What are the most effective and equitable distance-learning options in Rwanda?

Learning Question 8: What are the contributions of technology to learning? Which technologies are most effective and efficient for early-grade learning in Rwanda?

Learning Question 9: What works to strengthen the financial and technical capacity of country education systems—to ensure that learners gain solid foundational skills?

Learning Question 10: How can we best foster resilience among students, teachers, and school systems?

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META-ANALYSIS "GETTING TO ANSWERS" MATRIX

Evaluation Question	Data Collection Method	Data Analysis Method
What progress has been made to date in improving early literacy (reading and writing) and educational outcomes, *e.g.,* enrollment, retention, completion, and transition rates?	☐ Review of previous evaluation findings ☐ KIIs with USAID technical staff and IPs	☐ Comparative tables for trends based on indicators of interest—including, but not limited to, literacy, enrollment, retention, completion, and transition rates. ☐ Descriptive statistics. ☐ Estimate impact of USAID/Rwanda on early grade literacy. ☐ Triangulation and synthesis of findings.
To what extent have USAID/Rwanda investments and strategies in education contributed to increasing literacy skills?	☐ Review of previous evaluation findings ☐ KIIs with USAID technical staff and IPs	☐ Computation of investments in education by count and value—including. but not limited to. amount of funds, number of teachers trained, and proportion of schools with parent/community involvement. ☐ Analysis of associations between overall early grade literacy and different interventions. ☐ Regression analysis of determinants of early grade literacy.
What progress has been made to date in improving youth and WFD?	☐ Review of previous evaluation findings	☐ Comparative tables for trends based on indicators of interest—including, but not limited to, under-/unemployment rate. ☐ Descriptive statistics. ☐ Estimate impact of USAID/Rwanda on improving youth employment. ☐ Triangulation and synthesis of findings.
Have USAID/Rwanda investments and strategies in youth and WFD contributed to reducing youth underemployment?	☐ Review of previous evaluation findings	☐ Computation of investments in youth and WFD by count and value—including, but not limited to, amount of funds, number of youth trained, proportion of youth accessing finance, and proportion of self-employed youth. ☐ Apply multipliers to estimate additional income or jobs created. ☐ Analysis of associations between youth under-/unemployment and different interventions.
What are the major lessons learned?	☐ Review of previous evaluation findings	☐ Describe which lessons learned have been adapted by previous and existing programs. ☐ Content analysis for qualitative data from interview notes and document review.

Evaluation Question	Data Collection Method	Data Analysis Method
What have been the major obstacles/challenges?	☐ Review of previous evaluation findings	☐ Describe the main challenges in the two areas of interest by USAID/Rwanda projects as well as other implementers—and how they have mitigated them, if at all.
		☐ Content analysis for qualitative data from interview notes and document review.

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