

Itegure Gusoma

GET READY TO READ, EARLY CHILDHOOD DEVELOPMENT PROGRAMME, RWANDA - BASELINE

June 2018
Submitted to:
UNICEF (RWANDA)

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ACKNOWLEDGEMENT

Undertaking this work was made possible by financial provisions from UNICEF. Special appreciation goes to the UNICEF - RWANDA Team particularly Sara McGinty and Firmin Dusengumuremyi for the smooth coordination, VSO, REB, MINEDUC, the technical working team of Research World International Limited (Herbert Mugooda, Dr. Yovani Moses Lubaale, Dr. Patrick Wakida, Richard Nsubuga, Susan Mubbala, Assumpta Mushabe and Zipora Rukundo).

To all the respondents and participants that provided their valuable time to avail the requested for information, we are very grateful and honoured. Not forgetting the VSO volunteers, thank you.

LIST OF ACRONYMS

ABBREVIATION	
9YBE	Nine Year Basic Education
CSOs	Civil Society Organizations
DOS	Directors of Studies
ECD	Early Childhood Development
EDPRS	Economic Development and Poverty Reduction Strategy
EGRA	Early Grade Reading Assessment
ESSP	Education and Sports Sector Strategic Plan
GPS	Global Positioning System
ICT	Information and Communication Technologies
KIIs	Key Informant Interviews
MINEDUC	Ministry of Education
OECD	Organization for Economic Co-operation and Development
ORF	Oral Reading Fluency
REB	Rwanda Education Board
RTI	Research Triangle Institute
RWI	Research World International Limited
SPSS	Statistical Package for Social Scientists
TSSs	Technical Secondary Schools
TTCs	Teacher Training Colleges
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VSO	Voluntary Service Overseas
VTCs	Vocational Training Centers

EXECUTIVE SUMMARY

This report presents the findings of the baseline data collection conducted among pre-primary students with respective caregivers, primary 1 pupils with respective caregivers, pre-primary teachers, head teachers in 60 schools located in Bugesera, Burera, Gatsibo, Gicumbi, Gisagara, Karongi, Muhanga, Ngoma, Ngororero, Nyagatare, Nyamagabe, Nyamasheke, Nyaruguru, Rubavu, Rusizi and Rwamagana districts.

Evidence-based information resulting from the Itegere-Gusoma baseline, which lays the ground for the impact evaluation, describes the current level of reading and current situation found in the participating schools and caregivers. This will inform UNICEF and VSO who are implementing the Itegere-Gusoma programme and hopefully influence the future education policy decisions made by Ministry of Education in Rwanda (MINEDUC).

The assessments of children learning in pre-primary and primary one, such as the Early Grade Reading Assessment (EGRA) used in this Baseline Study, offer an opportunity to determine whether children are developing the fundamental skills upon which all other literacy skills build, and, if not, where efforts might be best directed. This is vital information for UNICEF-Rwanda to help guide the efforts to improve the quality of education in pre-primary.

Conclusions: More female pre-primary children in both comparison and intervention groups demonstrated fairer levels of reading readiness through identifying given colors compared to their male counterparts. Listening comprehension was overall, done very well in both comparison and intervention groups. Most children were able to respond correctly to between 1 and 3 items in the task. However, very few children could respond to all items in this task. There was good oral vocabulary development among pre-primary children as oral identification of common objects in Kinyarwanda was the best done task among pre-primary children. Disappointing is that in common vocabulary words sub task 1, three in every five pre-primary children were not able to point to any parts of the body correctly. This shows that the home was not being a good reinforcement in teaching the children. It is thus important to note that for this program to succeed there is need to emphasize parental involvement.

It was however surprising that in relation to the common vocabulary words sub-task 2 of placing objects, the pre-primary children did well so we can say that there were promising levels of reading readiness among pre-primary children given the presence of basic vocabulary that the reading materials required and they did not have much difficulty processing what they heard. Overall, there were some variations between the comparison and intervention areas and in a few cases; some variations were noticed by gender of the children.

For the primary one (P.1), it was discovered that there was lack of vocabulary skills among the P.1 children. In addition it was found out that there were positive listening comprehension skills. About 63% were able to correctly respond to 4 or more questions that followed the Kinyarwanda story. Despite the fact that these were P.1 children, there was almost no knowledge of alphabet, Phonemic reading, vowel sound or alphabetic principle and word reading in Kinyarwanda so the P.1 children lacked early literacy skills and emergent reading skills.

From the caregivers' point of view, slightly more nursery children than primary 1 children had missed school for 5 days, travelled over 7kms. On a good note eight in ten of the caregivers said that children used the local language at home and one in three (31%) had homework at home.

Based on the teachers' point of view, it was easy to teach reading in Kinyarwanda majorly because Kinyarwanda is the mother tongue of most pupils but highlighted it would be easiest if they had enough materials like text

books and dealing with fewer pupils than they have currently. Enhancing the confidence of pre-primary children to participate in learning activities at school would also go a long way to teach the said children.

Teachers further indicated that there were some variations between boys and girls. Boys were more active and more interested in reading than girls. The girls were however, reported to comprehend reading better especially with the help of pictures.

There was universal staying together of biological caregivers who also used the Kinyarwanda language at home with their children. Some caregivers were not fully participating in the activities that promoted learning among children. For example, only one in four of the care givers read books with their children, only one in five caregivers engaged children at home in activities that promote learning and school readiness, one in two caregivers gave assignments at home, the proportion of children repeating was high while very few children practiced reading on their own at home. All these activities are supposed to be supported and promoted by the child caregiver.

While scrutinizing the capacity of existing systems in schools, it is imperative to consider both the software and the hardware aspects. The hardware is mainly concerned with the provision of enough classrooms, seats in class, availability of facilities like libraries and books within the school. Most schools visited had classrooms where the pupils took their learning from. However, the model of training that involves play requires a big space and as such, most schools did not have enough room for the many children to be able to play while they learn.

The software aspects require the availability of qualified teachers who are motivated to perform the job. The teacher pupil ratio was high in some cases being more than 1:40. Infants usually need a lot of care and it is recommended that teacher pupil ratio for this level should be 1:15 if all children are to be attended too appropriately. There were limited reading materials such as story books, limited comprehension of the competency based curriculum and play-based education among teachers and head teachers and there were no developed standard ways of teachers and head teachers in assessing Kinyarwanda reading skills among pre-primary children,

Most teachers had not been trained in gender-sensitive pre-primary specific reading materials in Kinyarwanda, or how to deal with infants (young children) with disability. The greatest window of opportunity was that there were unexploited capacity levels of existing systems in schools that could facilitate effective support delivery of the programme.

Pre-primary caregivers had higher positive attitudes towards preprimary reading in Kinyarwanda based on the attributes asked of them where all of them either agreed or strongly agreed. In relation to beliefs, many caregivers did not agree with the negative belief attributes that were posed to them. They showed positive attitudes towards the education of their children.

On the contrary though, teachers reported that there were some caregivers who did not value teaching reading in Kinyarwanda as much as they valued teaching in English or appreciating some of the teaching aids used such as pictures and games. They instead appreciated learning how to read by use of alphabetical letters. As such, teachers believed that some parents had a negative attitude in supporting their children to learn how to read. Findings further revealed that most caregivers don't have a culture of buying reading materials and assisting children on learning how to read outside school.

Although most of the teachers had a positive attitude in teaching Kinyarwanda more so because it was their mother tongue and also because it helps them to promote the culture/togetherness, most teachers had not been trained in teaching Kinyarwanda to pre-primary children and their supervisors did not know the need for supervision and how to supervise. There were no in-service trainings on teaching Kinyarwanda to pre-primary children.

Recommendations: In order to facilitate the need for the development of early literacy and emergent reading skills in Kinyarwanda among children, teachers and caregivers should be empowered and encouraged by the programme to support intensely the children outside the school environment including those with disability.

The programme should foster close collaborations between schools and caregivers/families such that both parties can support learning how to read at any available opportunity. As such a robust timetable should be designed for in-service training of the current teachers and IEC materials developed and seminars conducted for caregivers.

Caregivers irrespective of gender should be encouraged to be involved equally in activities that promote learning and school readiness like buying books for children to use at home, reading with the children at home, engaging children in different learning activities. The caregivers and the communities in which these children live need also to be sensitized about the importance of pre-primary education and learning reading in Kinyarwanda at younger ages.

There is need for different stakeholders that is teachers, head teachers and caregivers to be taught on the benefits of reading aloud to children and this should be encouraged. This reinforces individual attention, language, reading readiness development and book handling skills.

The programme should proactively advocate for either smaller class sizes or recruitment of more teachers so there is lower pupil-teacher ratio for effective teaching how to read, deliberately provide sufficient tailor-made and gender-sensitive reading materials such as Kinyarwanda pre-primary text books to promote equal female and male children participation in reading activities. There is need to include aspects of children with disability.

The teachers and head teachers should be trained in assessing Kinyarwanda reading skills among pre-primary children.

The programme should consolidate the high positive attitudes towards preprimary reading in Kinyarwanda among the caregivers and in all the target communities such that some caregivers who did not value teaching in Kinyarwanda as much as they valued teaching in English can change their attitudes and dispel some of the existent negative beliefs on ECD in Kinyarwanda.

The programme should utilize the proximity of TTCs to schools to get in the in-service training for all pre-primary teachers and head teachers in teaching Kinyarwanda to pre-primary children.

1.0 RWANDA EDUCATION BACKGROUND

1.1 Structure of the Rwandan Education System

Before 2012 in Rwanda, the compulsory education lasted 9 years from age 7 to age 15, it covers primary and lower secondary education and was commonly known as “Nine Year Basic Education” (9YBE)¹. After its success through consolidating and building upon the gains made over the years, the Government of Rwanda took a further ambitious move of prolonging the programme to 12 years of basic education. The pronouncement was based on a number of positive lessons drawn from the Nine Year Basic Education programme, including: (a) the ownership of the school programme by the communities in the villages, which had increased the communities’ involvement in school affairs including school management; (b) the designs, standards and approach used in the programme’s school construction which provides a platform to ensure that future infrastructure is durable and sustainable; and (c) the government commitment to providing a full cycle (six years) of secondary education ensuring that the programme has ongoing political commitment. Therefore, all children who completed the nine-year basic cycle from 2011 onwards can since continue their studies to the full secondary cycle of 12 years and beyond². A synopsis of the structure of the education system in Rwanda is as follows:

- **Pre-primary Education** which is organized in nursery schools for a period of three years for children between the ages of 3 and 6.
- **Primary Education** which lasts six years; the official school age at this level is from 7 years to 12 years. Primary education ends with a national examination which yields eligibility for Lower Secondary education studies.
- **Secondary Education** which lasts six years; the official age for this level is from 13 years to 18 years. It is composed of lower secondary (the first three years) and upper secondary (the second three years) both ending with a national examination which respectively yields eligibility for upper secondary education and tertiary education studies respectively. Upon completion of lower secondary, students enter different fields of study such as sciences, humanities, languages, teacher training or technical studies.
- **Technical and Vocational Education and Training (TVET)** which is taught in Technical Secondary Schools (TSSs), Vocational Training Centres (VTCs) and Technical Tertiary Institutions (awarding Diploma and Advanced Diploma). TVET provides both young and unemployed people with the skills to gain productive employment. It also provides those already in employment with an opportunity to upgrade their skills, including entrepreneurs and those wishing to be self-employed.
- **Tertiary Education** which is based on a credit accumulation and modular scheme (CAMS) system. The qualifications awarded at different tertiary education levels are set out in the Rwandan Higher Education Qualifications Framework. The Framework has 7 Levels of exit awards: Level 1, Certificate of education; Level 2, Diploma in higher education; Level 3, Advanced Diploma in Higher Education; Level 4, Ordinary Degree; Level 5, Bachelor’s Degree with Honours; Level 6, Masters Degree and Level 7 Doctorate.
- **Adult Literacy Education.** UNESCO defines a literate person as someone who can read and write a short, simple statement about their life. Literacy is key to communication and

1 Education Statistical Yearbook, Ministry Of Education, Rwanda, 2016

2 Education Sector Strategic Plan 2013/14-2017/18, Ministry Of Education, Rwanda

learning of all kinds and a fundamental | UNESCO. Education for All Global Monitoring Report 2010: Reaching the marginalized. UNESCO, February 2010

9 condition of access to today's knowledge societies. Adult Literacy Education in Rwanda provides an opportunity (trainers and training centers) for adults to acquire the basic writing and reading skills.

1.2 Pre-primary status in Rwanda

It has been echoed by Save the Children³ that that investment in superb pre-primary education is an effective way to enhance improvements in early-grade reading. Save the Children further discovered that children who attended high quality pre- primary centers in Rwanda were better prepared for P1 in addition to maintaining their advantage into P1. They were twice as better as their peers who attended low quality pre-primary centers.

Rwanda has one of the highest primary school enrolment rates in Africa (97.6%) yet ensuring that all students learn to read in the early grades remains a challenge. A reading assessment conducted in 2015 by the USAID-funded **Literacy, Language, and Learning** (L3) activity found that half of Primary Grade 1 (P1) students were unable to read a single word of grade-level text. One reason for this alarming finding was that students did not enter P1 with the necessary school readiness and emergent reading skills from pre-primary and this prompted the government of Rwanda to recognize the importance of pre- primary education. To this effect, progressive expansion of pre-primary and school readiness programs are among the key priorities in the Ministry of Education (MINEDUC) and as such improvements are being registered over time. For example,

another reading assessment conducted in 2016, indicated that learners in P1, P2 and P3 showed statistically significant improvements in oral reading fluency (ORF), 1 and reading comprehension from baseline to end line. P1-P3 learners demonstrated significant gains in the number of words they could read correctly per minute (wcpm) at endline. P1 showed an average increase in ORF of 2.9 wcpm (± 1.0 wcpm). P2 showed an average increase of 5.7 wcpm (± 2.1 wcpm). P3 showed an average increase of 3.4 wcpm (± 1.8 wcpm).

Through the past decade, Rwanda has been successfully improving access to its primary education, and it has almost achieved universal primary enrolment. Primary net enrolment rates increased up to 97.3% in 2016 from 96.5% in 2012 (98% for girls in both years and an increase among boys from 95% in 2012 to 97.3% in 2016), and primary completion rates decreased from 72.7% in 2012 down to 65.2% in 2016 (67.5% for boys in 2012 to 59.3% in 2016 while for girls 77.7% in 2012 to 71.1% in 2016⁴, jeopardizing the track of Rwanda to achieve the education-related Millennium Development Goals.

The other revelation according to the Education Statistical Year Book of 2016 and other sources is that in Rwanda, the primary service providers in the area of Early Childhood Development (ECD) have been the private sector entities and the civil society organizations (CSOs). In 2012, there were 1,870 pre-primary schools, 2 of them being public and 1,868 of them being private schools while in 2016, the number of pre-primary schools shot up to 2757, 1474 being public, 1283 being private. The overall Net Enrollment Rate increased from 12.7% in 2012 to 17.5% in 2016.

According to NIS projections, there are approximately 1.1 million children between the ages of three to six years, the years generally associated with pre-primary education. The pupil-teacher ratio at pre-primary level is 1:33 well

3 Save the Children. (2013 August). *Emergent Literacy: Investing Early for Exponential Outcomes*.

4 Education Statistical Yearbook, Ministry of Education, Rwanda, 2016

above the internationally recommended levels (OECD has established a minimum staff to pupil ratio of 1:15)⁵. The Ministry of Education had a limited budget for pre-primary education which did not at that time cover the salaries for pre-primary teachers and so the costs were generally provided by parents and communities or in some cases by civil society organizations.

Several studies have indicated that investments in ECD are among the most cost-effective investments a country can make and that ECD returns to investment are higher than for any other age group⁶. It must be emphasized here that this early investment is critical as delays in the early years are difficult and costly to reverse later in life.

Further to this, investment in ECD enhances the child's survival, growth and development and this is especially so for the marginalized and disadvantaged children. While every child needs effective early childhood supports, more often than not, children from disadvantaged environments are least likely to get them. Due to the conditions in which they live, these children are unlikely to benefit from early developmental stimulation, good health, adequate nutrition and safety. Quality ECD programs substantially improve children's chances of survival and act as the most effective poverty reduction strategy which can effectively break the inter-generational cycle of poverty.

Currently in Rwanda, tremendous efforts have been committed to pre-primary education. Key sector policies related to ECD have been put in place through MINEDUC though Ministry of Gender and Family Promotion is the lead for the 2016 National ECD Policy. Within an inter-Ministerial framework and the Education Sector Strategic Plan (ESSP (2010-2015), MINEDUC reflects the commitment to develop and implement the ECD Policy and Strategic Plan⁷.

The ESSP calls for civil society, communities and the private sector to continue providing pre-primary education services. It notes that with the development of the new ECD Policy, this approach will be re-examined in light of national and community needs and demands for services. It calls for access to pre-primary education, but findings from nationwide consultations drew attention to the one year gap which exists between the end of pre-school and the beginning of primary school and the need to ensure six-year olds do not languish at home in between completing ECD and before entering primary school. For those children who do not attend formal ECD centres, there may also be a need for the special provision of a rapid school readiness programme.

The ESSP recognises that pre-primary education is relevant for the achievement of the high-level objectives of the EDPRS which include; access to education for all, quality education at all levels, equity in education at all levels, effective and efficient education system, science and technology and ICT in education. The ESSP provisions present a mandate for expanding and improving pre-primary education in Rwanda.

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- 5 The child care transition. A league table of early childhood education and care in economically advanced countries, UNICEF, 2008
 - 6 Professor Heckman's analysis of the Perry Preschool program in the US shows a 7% to 10% per year return on investment based on increased school and career achievement as well as reduced costs in remedial education, health and criminal justice system expenditures
 - 7 Early Childhood Development Policy, Ministry of Education, Rwanda, 2011.

2.0 THE ITEGURE-GUSOMA PROGRAMME DESCRIPTION

UNICEF and USAID are partnering with the Ministry of Education (MINEDUC) and Rwanda Education Board (REB) to perfect pre-primary education, with a particular emphasis on early literacy and emergent reading. This will be achieved through a programme referred to as “Itegure - Gusoma” (Get Ready to Read) where pre-primary classrooms will be equipped with Kinyarwanda storybooks, Kinyarwanda teacher guides, bookshelf/mat, posters and other appropriate teaching and learning materials. Teachers, head teachers and education stakeholders will be trained on the use the teacher’s guide and receive regular coaching visits to enhance early grade reading. The education stakeholders will be trained in early grade reading and play-based education while parents and community members will be equipped with the skills to support pre-primary reading.

The target of Itegure - Gusoma is to increase the percent of learners in selected schools who demonstrate increased learning outcomes in Kinyarwanda in Primary I through early grade reading support at the pre-primary level. This will be achieved by strengthening the quality of pre-reading instruction in targeted pre-primary schools.

2.1 Role of UNICEF, VSO and other stakeholders in programme implementation

UNICEF Rwanda has a mandate of ensuring that all the children of Rwanda have a chance to life in terms of education, health and all other areas. UNICEF took up the responsibility of trying to ensure that the government can give pre-primary due attention. To this effect, USAID donated some money to UNICEF to implement the Itegure-Gusoma Programme.

“If children don’t pick up the interest of reading from early grade, if they don’t get model reading, if they don’t develop that interest from early stage the results might not be as good as you want them to be at higher levels. A dollar investment in pre-primary has a benefit of seven dollars in the future. – UNF01”.

UNICEF is thus providing technical and financial oversight to the entire programme. It was responsible for selection of RWI which conducted the research. The research was managed by UNICEF and also liaised with Research World International Limited (RWI) team and other key stakeholders. UNICEF Rwanda was also responsible for providing relevant information at country level, provided access to relevant reports/statistics.

Voluntary Service Overseas (VSO), an organization working with schools, health and livelihoods to help people champion their own personal development by bringing both international and Rwandan volunteers to work together is one of the key implementing partners, providing technical and financial support to the programme.

The Itegure - Gusoma is being developed and implemented in partnership with MINEDUC and REB.

The stakeholders among other roles;

- Planned and designed the research through consultation with the main parties involved and approved the final research’s terms of reference;

- Provided technical inputs to the design of the research;
- Provided guidelines to evaluators and monitor the research implementation;
- Reviewed the RWI's inception report (including proposals for desk review of documents, research instruments, country visits, annotated outline of the report);

The stakeholders will also;

- Review preliminary findings for validation of facts and analyses, and help generate recommendations
- Approve the preliminary report;
- Review and approve the final report, verify the evaluators' findings and propose management response;
- Ensure that the research findings are used for future planning and pre-primary programmatic interventions as well as advocacy purposes.

The variety of stakeholders ensured that different opinions are represented and objectivity is achieved.

On the other hand, RWI was responsible for organizing field visits, logistical support related to data collection and organizing meetings with different stakeholders, analysis of findings, report writing and dissemination of findings.

3.0 THE BASELINE

The baseline involved gathering adequate data among control and intervention groups of pre-primary students, primary students, their parents, teachers and head teachers to inform programme design and implementation but also to set a basis of comparison for the end-line research, to be conducted in a year to come.

The baseline specific objectives were as follows;

1. To establish the pre-intervention indicators along the selected key impact and outcome indicators
2. To establish the baseline information on selected aspects of behaviors required to achieve the outcomes that are the target of the intervention;
3. To establish the baseline information as to the capacity of the existing systems (government/school structures and capacities), parents (behaviors and attitudes) and teachers (skills, knowledge and attitudes) to effectively support delivery of the programme.

3.1 The Design Of The Baseline

The RWI team of consultants adopted a cross sectional pre-test, post-test design that used non- equivalent interventional and comparison groups where both quantitative and qualitative approaches will be used.

The design facilitated formation of prospective panel data of two groups (intervention and comparison) thus making it easy to measure group level social change over time. The comparison schools were constituted in the same districts, sectors but far away from the intervention schools.

To facilitate re-contact and lower the rate of attrition, the research team put a number of mechanisms in place. They included; rapport building with respondents, confidentiality assurance, obtaining GPS coordinates and contacts from the target respondents and sending more skilled data collectors.

3.1.1 Baseline Approaches

In the baseline data collection of the Itegere-Gusoma Programme, the team used both quantitative and qualitative approaches.

Quantitative Approach

This entailed surveys with pre-primary and PI children then their respective parents/caregivers.

- The pre-primary children surveys included; learning assessments on Common Words and Letter Sound Knowledge and learning assessments on Listening Comprehension Oral Vocabulary.
- The primary one children surveys included; context surveys and EGRA assessments
- The caregivers were interacted with using the Caregiver survey

All survey data was collected electronically with tablets using the SurveyToGo platform while learning related data with tablets using the Tangerine software. With this, the data quality was more controlled and obtained in real time from the field which allowed thorough re-checks and in time preparations for processing. The data collected was thus not entered but was immediately exported to SPSS software for cleaning and analysis.

The surveys were administered after randomly selecting children to participate from the prior sampled schools. Assent was sought from the children; a context survey was administered on P.I group before the learning related assessments while for the pre-primary group, one learning assessment was done after the other. After all children assented and completed their surveys, contacts of their respective caregivers/parents who live in the same household as the children in question were obtained and appointments were made. The caregivers were consequently met and their surveys were completed.

Qualitative Approaches

The qualitative approaches entailed **Key Informant Interviews (KIIs)** as well as **document reviews** as described here below;

Document reviews: The research team obtained the foundation of the assignment from reviewing various relevant documents shared by UNICEF and those accessed online. These include; Rwanda ECD policy, MINEDUC priorities ESSP 2018-2023, Final report analysis of the costs of pre-primary October 2015, ECE Programme coverage MAP, Dropout Inception report and methodology Final, main indicators of interest, existing literature reviews and meta-analyses, such as USAID and RTI's 2013, the Intersection of Safe Learning Environments and Educational Achievement; ethics in researching sensitive topics with children, such as resources cited in the Child Protection Monitoring and Evaluation Reference Group's 2012 publication, "Ethical Principles, Dilemmas and Risks in Collecting Data on Violence Against Children: A review of available literature among others.

Key Informant Interviews (KIIs): The research team utilized these with teachers, head teachers and Itegere - Gusoma implementation focal persons. These were mobilized by the project manager. For each participant, an appointment was made and was found at their preferred venues so the designated researchers found them there and their interviews were conducted.

The qualitative data that was collected inclined on mostly contextual understanding and deeper focus on attitudes, knowledge and practices relating to engagement and understanding of early reading amongst their pre-primary and primary children.

Using the Key Informant Discussion guides and audio recorders, interviews were done with the participants. The purpose for use of audio recorders was to ensure that information was captured accurately to aid the later transcription.

3.2 The Baseline Questions

The following broad questions guided the baseline data collection;

1. What are the variations in the pre-intervention indicators along the selected key impact and outcome indicators?
2. What are the variations in aspects of behavior that are required to achieve the outcomes of the intended interventions?

3. What are the capacity levels of existing systems in schools for effective support delivery of the programme?
4. What behaviors and attitudes do parents/caregivers have for effective support delivery of the programme?
5. What skills, knowledge and attitudes do teachers have for effective support delivery of the programme?

3.3 The Sampling Strategy

Specific procedures were followed to sample the persons that participated in the baseline study. This happened at 3 broad levels; district, school and classroom.

- At district level; when selecting the study and implementation schools, the RWI team of consultants followed the broad criteria given by UNICEF-Rwanda. The criteria included; a school having pre-primary, being government aided, being near a TTC and in a specific sector.
- After fulfilling the above criteria, the team of consultants selected the schools by removing from the primary school data base those that did not meet the criteria and these were 10.
- A total of 98 schools fulfilled the set criteria.
- From these 98, the team of consultants selected the 40 study schools (for data collection) first. This arose because of the interest to have the nearest schools to the TTCs.
- Before selection, the schools were arranged by sector, TTCs and then numbered serially.
- As such, the team got a sampling interval through $= 98/40$ which equalled to 2.45
- The RWI team of consultants also needed a random start which would be any number between 1 and 2.45 using the random command in Microsoft Excel hence we got a random start of Serial Number 2. It is important to note though that because our sampling interval was a fraction, we rounded off the 2.45 to the nearest whole number 3.
- This resulted into selection of the first which was serial number 2.
- In instances where the resultant random school was further than 14km yet there were nearer ones, it was replaced with the nearer so as to fulfil the TTC proximity criteria.

In addition to the 40 study schools, another 40 implementation schools had to be selected as indicated below;

The team of consultants followed all the set criteria.

- **In Byumba** sector which had only 5 schools, in addition to the selected 2 study schools, all the remaining 3 were selected.
- **Cyahinda:** Of the 6 schools, 5 were selected. In addition to the 2 study schools, 3 more were selected using a sampling interval of 2.45 and a random start of 2. However, of the additional 3, 2 were more than 7 kilometers away from the TTC so those were assigned to the implementation lot.
- **Cyeru:** Had only 4 schools so in addition to the 2 study schools randomly selected, the remaining 2 were all selected automatically. Since this sector had less than 5 schools, we went to the nearest sector to select the 5th school where implementation will take place. The nearest sectors to Cyeru were Rusarabuye and Rungabare but we randomly zeroed to Rusarabuye and

we randomly selected 1 school which was far (190km). It was consequently replaced with the 'nearest'.

- **Gisenyi:** In the first round, 4 study schools were randomly selected. These were among the nearest to the TTCs. The second round involved random selection of 1 additional school for the district and sector to have five schools.
- **Kabarore:** In addition to the 2 nearest initially randomly selected for study, the remaining 3 were all randomly selected for implementation but GS Kibondo primary school was 19 kilometers away from the TTC so it was replaced with Gakiri P/S which was 5.5km in one of the nearby Gitoki sector.
- **Karengeru:** In round one, 4 study schools were randomly selected. To select the 5th school which would only be an implementation school, we subjected the sector to simple random sampling to select the additional 1.
- **Matimba:** In addition to the 2 study schools nearest to the TTCs, all the remaining 2 in the sector were automatically selected. Since this sector had less than 5 schools, we went to the nearest sector to randomly select the 5th school where implementation would take place. We randomly zeroed to Rwimiyaga and randomly selected 1 school which was far (22km). It was then replaced with the nearest to the TTC which was 14.2km. However, Mitayayo primary school in this sector is 20km away from the TTC but there was no nearer school in the nearby sectors to replace it.
- **Matyazo:** In addition to the 2 study schools nearest to the TTCs randomly selected in round one, 3 more schools were selected randomly from the sector: Cs Kaseke which was 13km away was replaced by Cs Gashonyi which was 9km.
- **Mururu:** In addition to the 3 study schools randomly selected, 2 additional schools were randomly selected to have 5 from the district and sector.
- **Nyamata:** In addition to the 4 study schools randomly selected, 1 school was randomly selected for implementation.
- **Nzige:** In addition to the one study school randomly selected. Among the remaining 2, one was selected automatically as implementation school but the second school Gs Rugarama was 20 Kilometers away from the TTC so had to be replaced with Gs Kangamba which was 12.5km. Since this sector had less than 5 schools, we went to the nearest sector to select the 4th and 5th schools where implementation would take place. The nearest sectors to Nzige were Nyakariro and Karengu but we randomly zeroed to Karengu and we randomly selected 2 schools.
- **Rubengera:** 5 study schools and 1 implementation school were randomly selected from this sector.
- **Save:** In addition to the 2 study schools randomly selected, all the remaining 3 were randomly selected automatically for inclusion among the implementation schools.
- **Shyogwe:** In addition to the 2 study schools randomly selected, the only remaining 1 Ruli Aderp 13km away from the TTC was replaced with one from the nearby sector. Further, we went to the nearest sector to select the 4th and 5th schools where implementation would take place. The nearest sectors to Shyogwe were Nyamabuye and Cyeza. We randomly zeroed to Nyamabuye and randomly selected 2 schools.
- **Uwinkingi:** In addition to the 2 study schools nearest randomly selected this sector; another 3 were randomly selected for implementation.
- **Zaza:** In addition to the 2 study schools randomly selected from this sector; all the remaining 3 were automatically included as implementation schools since the sector had only 5 schools.

Comparison schools' selection protocol; the selection of the schools for the comparison followed the same procedures as the selection of the study and implementation schools above. However, the team selected half the number of comparison schools as in the study schools that is; 20 schools in various sectors though in the same districts.

At school level, classrooms from which to draw samples were selected.

The team randomly selected one classroom per grade. In other words, field teams with the leadership of the supervisors selected the N3 pre-primary classroom and one P.1 classroom per school.

- If there was more than one classroom for P.1, the enumerators would randomly select one classroom to draw children from..

Still at school while the team leaders were introducing the study and the team in the schools for the first time, it was also to be communicated that head teachers & teachers would also be interviewed - this was only so if the school was sampled for the head teacher and teacher interviews.

At classroom level, the team leader approached the sampled classroom to briefly introduce the study to the teacher in but also ask for permission to get in and briefly sample the students to involve in the study

Once accepted, the team leader would get in, greet the students, told the students his/her name then asked them to line –up. The girls lined –up on one side and the boys would do the same on the other side.

Each of the girls was given pink pieces of paper with numbers on them and the boys were given white also with numbers.

Using the true random generator, the team leader focused on one gender and sampled the students based on the required numbers, 17 per class for intervention schools and 11 per class for comparison schools. The attempt was to balance the sample by gender as much as possible. Fewer students were sampled from comparison schools than intervention or study schools because during sampling, the number of sampled students in comparison schools was smaller than the sampled students in the intervention lot. This was because it was unethical and unnecessary to have as many samples from the comparison lot yet there was not going to be any intervention for them. That said, the samples used were sufficient to paint a picture in comparison areas.

The sampled students were gathered in one corner of the classroom and told that they would be playing a game shortly. While the rest were told that this time around the game would be for the sampled ones but next time would be their turn and the papers given to them were withdrawn. One assessor took the responsibility of writing the names of the sampled students and shared with the team.

The designated assessors then found a conducive, visible and safe place where they did the learning assessments. Each assessor picked one by one of the sampled students. The practice was the same in pre-primary and primary classes.

As the assessors were doing the assessments, the team leader would approach the head teacher to re-introduce the purpose of the visit and seek for consent to participate in the study. If the head teacher was absent, the Director of Studies at school was considered for interview in that school. Once consented, Key Informant Interviews were administered.

At the end of the head teacher or Director of Studies interviews, the team leader would obtain the list of all pre-primary teachers. The team leader would then randomly sample one pre-primary teacher to interview in each school. If the selected teacher was not in school, the sampling process would be repeated to select another teacher. The sampled teacher would then be approached by the team leader and the purpose of the study would be introduced to him/her. Consent would be obtained and once consented, the Key Informant Interview would be administered.

Caregivers: At the level of sampling students, their names were written down. The same names were shared with the team leaders so as the assessors were doing assessments, the team leaders would go to the school administration to obtain contacts and household geographical location details of the caregivers/parents.

The team leaders would then use the contacts to make appointments with caregivers/parents of children who had been sampled for surveys and assessments. If the contact details were not going through or not on file, the team leaders would liaise with the school administration to allow the teams go with the children in question to their homes to find the caregivers/parents.

The entire field team (assessors and team leaders) would have a lunch-time break and thereafter, the team would head to the communities to find the caregivers/parents. Once found, introductions would be done by the team leader and if consent was obtained from the caregivers, surveys would be done. Those who were not at home by the time of the visit of the field teams, further appointments were scheduled for them. Additional 3 call-backs would be arranged for the absentee caregivers/parents.

4.0 DATA COLLECTION

Five teams of assessors of 5 with 1 supervisor/quality controller were constituted. They were then deployed – one team was deployed to conduct data collection at a school per day.

Before the field teams travelled to their designated schools, the VSO made rounds to the districts of interest to notify the respective District Education Officers about the intention to work with the selected schools.

On dispatching the field teams, the RWI team of consultants provided introductory letters, ethical approval documentation from MINEDUC and the recommendation from REB. To be courteous and construct meaningful working relationships between the school administrators and the field teams, the team leaders always started by visiting the administrative units of the schools, introduced the teams and provided the documents carried along.

While at school, on being granted permission by the school administration, part of the assessors would subsequently establish the best locations which they would set up and get ready for the children to be interviewed while the other would circulate to the classes of interest i.e. pre-primary and primary I to select a classroom from which children would be selected. Once the classroom was selected, the designated fraction of the team would then approach them, introduce themselves and the purpose of the visit to the teacher in session and ask for permission to sample. Once permission was granted, desired samples were randomly selected and a batch of the selected children would be led out for assessments in turns. Assent was sought for their participation. If the children assented, they would then be assessed but this was outside of others earshot.

After administration of all the assessments on the children, their respective caregivers' or parents' contact details were obtained from either the class teachers or the school administration. The designated field teams would then contact the caregivers/parents and appointments would be scheduled for their interviews which would eventually be done.

There are those caregivers whose contacts were not in the school records so an alternative approach was used to find them. Once the morning session had ended, the team would work with the teachers to identify the children's routes back home. Each team member was given a number of students who were going in the same direction so as to go with them and trace their homes plus their caregivers. Most of the caregivers were subsequently located within the communities and their interviews were done after the study was introduced to them and their consent was sought.

Selected head teachers and teachers would also be approached for their interviews and if they consented and ready, the interviews would be administrated by the field team supervisors. If they opted to be interviewed on another date, they would schedule appointments with the field teams and they would be followed up until the interviews were done.

Out of schools, the Itegere-Gusoma implementation focal persons were also interviewed. Appointments would be scheduled with them and designated teams of researchers would follow them up to interview.

All the assessments with children, interviews with teachers, head teachers and caregivers/parents were actualized in Kinyarwanda while all the interviews with the Itegere-Gusoma implementation focal persons were done in English.

Data from the children's assessments was captured on android powered tablets with electronic version of the assessments that had been pre-programmed on the Tangerine platform while the P. 1 children's context surveys and caregiver surveys were captured on the SurveyToGo platform. After the interviews were completed and checked by the enumerator, they were uploaded to RWI central server. Accessed from the server, the two designated desk quality controllers verified each interview that came in. The interviews that were discovered to have had some inconsistencies were flagged and the responsible enumerators were contacted to verify and take corrective action if was needed.

4.1 Data Collection Schools

Forty schools among those where the Itegere-Gusoma programme implementations will occur were approached and data collection happened there (*See details in Appendix D*). Among the schools that were originally sampled for data collection, some were discovered not to have had pre-primary sections so they were replaced. These included the following;

Umabano 1 was replaced by Umabano 3, Gisenyi was replaced by Gacuba 2c, Gs Matimba was replaced by PS Nkerenke, Mataba was replaced by GS Nyagatovu, Tamba was replaced by GS Kinteko while Ep Mutimasi was replaced by GS Mururu because its pre-primary section was housed in a nearby church out of the school premises and it did not have a stable pre-primary teacher.

In addition to the 40 schools above, 20 more schools were included for data collection as a comparison lot (*See details in Appendix E*). Like among many of the implementation schools, 3 schools among the comparison lot were replaced because they did not have pre-primary sections affiliated to the school. These were; G.S Rwikiniro replaced by Karubungu PS, Gisanze Ps replaced by Gs uwinkomo and Gs Kabgayi A replaced by Nyabisindu Ps.

4.2 Limitations of the study

- Limited literature on pre-primary reading in local languages to compound comparisons especially in the region.
- Limited availability of assessment tools for pre-primary children which made it difficult at instrument development stage to come up with a single evidence –based instrument.
- The interest to have the nearest schools to the TTCs could have limited the degree of representativeness of study schools.

5.0 DATA PROCESSING

All the data was captured on the tablets /phones in two different programs namely SurveyToGo and Tangerine. Completed data was downloaded in Microsoft excel. The first task was to edit for completeness, proper entry especially for the school, district and gender. Also to be edited were the unique identification numbers which were mixed up. The purpose for editing the unique identification numbers was to help in the merging and appending the datasets correctly.

There were a total of five datasets which had to match. Each interviewed child had two complete reads and then the caretaker information. Initial data cleaning was done in excel and finally in Stata version 13 which was used for the data analysis. Some data required transformation as some variables appeared as string variable and would make it hard for the computation and formation/ creation of new indexes combining more than one variable. The final datasets are available in Ms Excel, Stata 13 and SPSS. Overall, 1808 children have been included in the study of whom preprimary 902, primary one 906 and 1749 caretakers.

Table 1: Summary of data for caregivers, pre-primary and primary I children

	Nursery		Primary		Total children	
	No	%	No	%	No	%
All children						
Children whose caretakers were interviewed	866	96.0	883	97.5	96.7	1749
Children whose caretakers not interviewed	36	4.0	23	2.5	3.3	59
Total children in the analysis	902	100	906	100	100	1808
	Comparison		Intervention		Total Nursery	
Nursery	No	%	No	%	No	%
Children whose caretakers were interviewed	217	97.31	649	95.6	866	96.0
Children whose caretakers not interviewed	6	2.69	30	4.4	36	4.0
Total children in the analysis	223	100	679	100	902	100
	Comparison		Intervention		Total primary	
Primary	No	%	No	%	No	%
Children whose caretakers were interviewed	218	98.2	665	97.2	883	97.5
Children whose caretakers not interviewed	4	1.8	19	2.8	23	2.5
Total children in the analysis	222	100	684	100	906	100

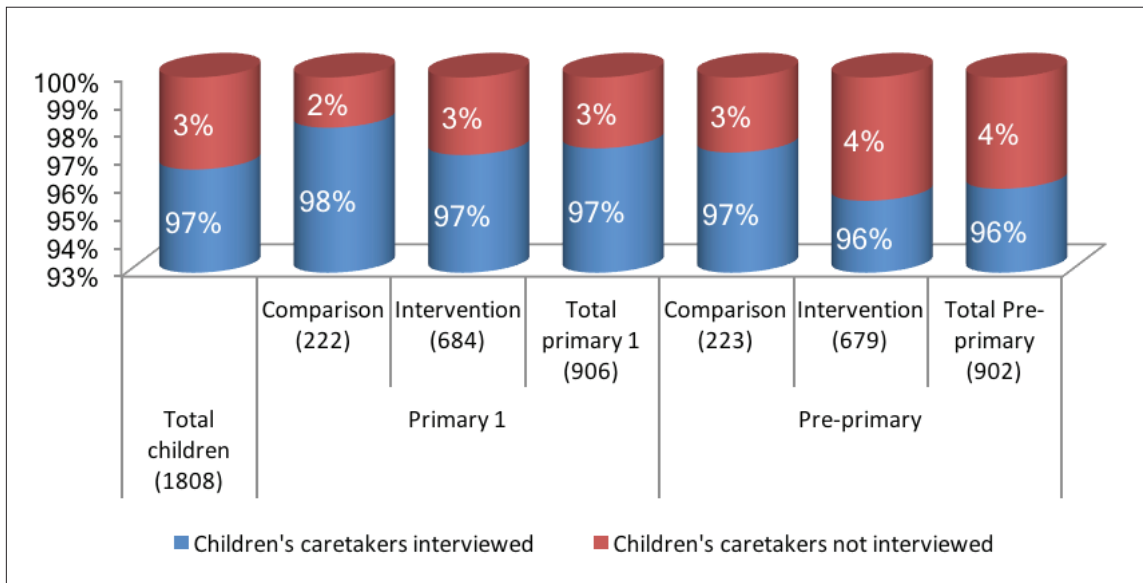
6.0 BASELINE FINDINGS

6.1 Demographics

This section highlights data relating to the Itegere-Gusoma baseline particular groups that were involved. The groups included; pre-primary and primary children, caregivers, pre-primary teachers, head teachers and focal implementation persons.

The goal of Itegere Gusoma is to increase the percent of learners in targeted schools who demonstrate increased learning outcomes in Kinyarwanda in Primary I through early grade reading support at the pre-primary level. There is no way one can detect increased learning outcomes in Kinyarwanda without knowing the current learning level of Primary I in target schools. Also there is no way you could holistically assess the Primary I children without their home environment including their caregivers so that explains why P.1 and caregivers were involved in the baseline.

Fig. 1: Children and parents interviewed across groups

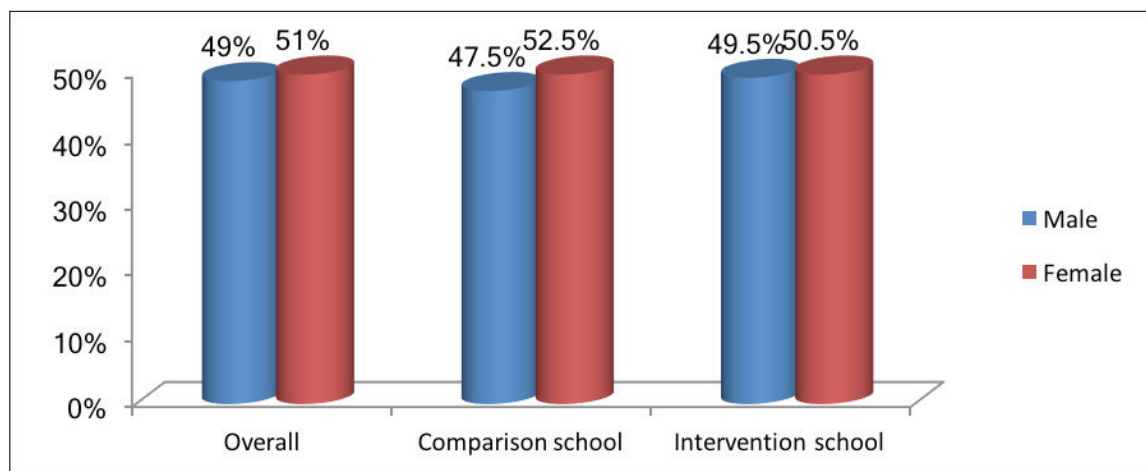


In primary 1, 906 children were interviewed; 222 in the comparison and 684 in the intervention lot. Of those children, parents of 2% and 3% of the children in the comparison and intervention lots respectively were not traced.

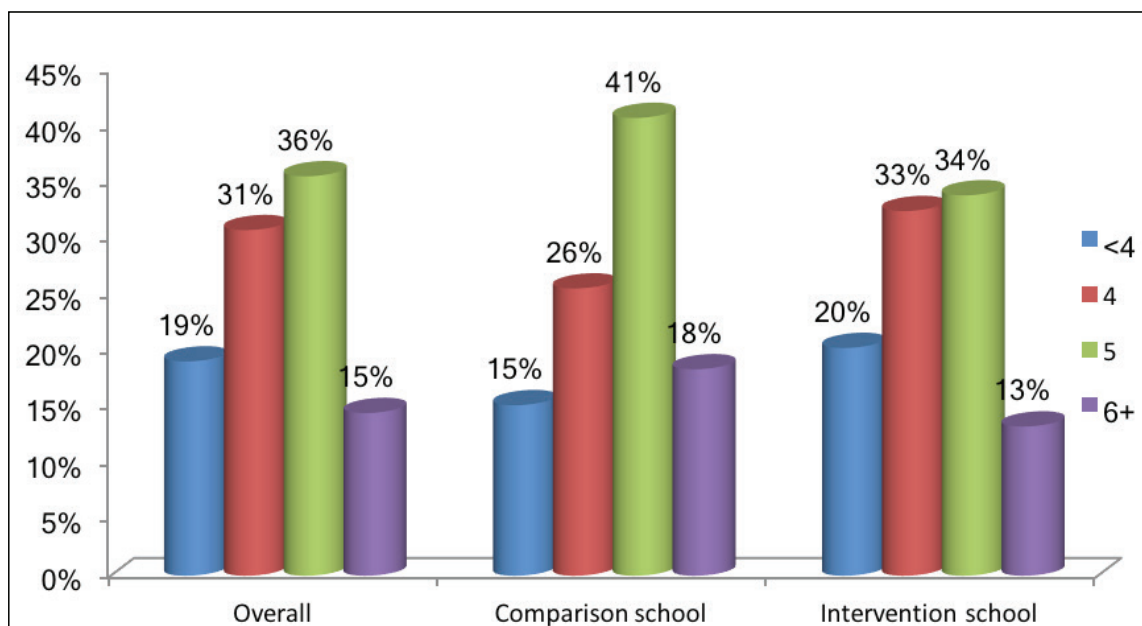
In pre-primary, 902 children were interviewed; 223 in the comparison lot but of those, the research team was not able to trace parents of 3% children while of the 679 in the intervention lot; parents of 4% children could not be traced.

Pre-primary

Pre-primary children were not subjected to all the demographic questions as were P.1 for the fact that they were too young to be stressed with some many questions.

Fig 2: Gender of Pre-primary children

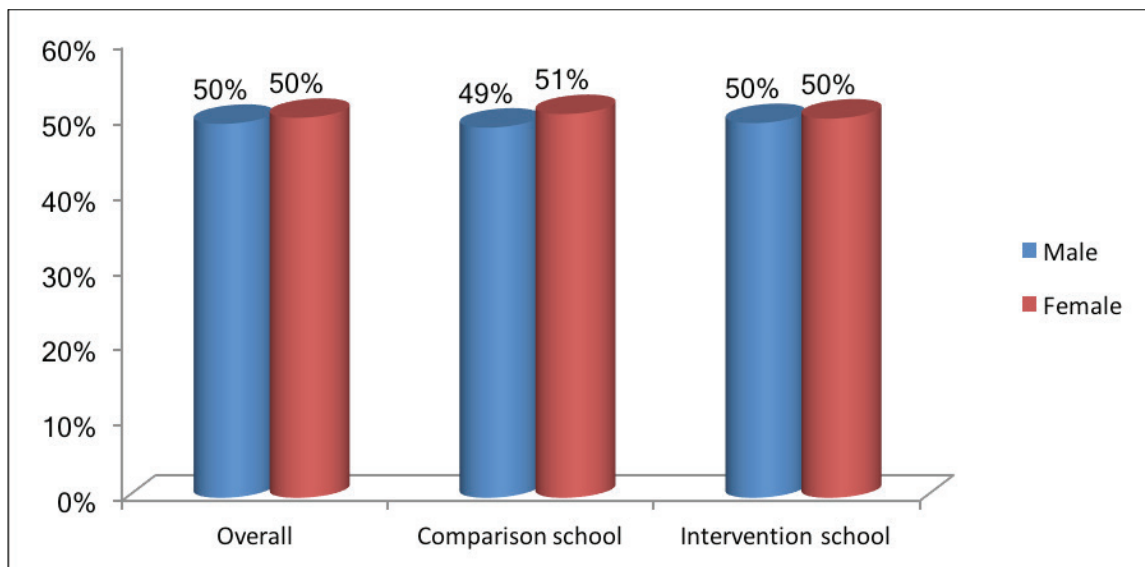
Slightly more females than males among pre-primary children were assessed regardless of whether in the comparison or intervention groups. This was determined by the gender distributions in the classes visited.

Fig. 3: Age of Pre-primary children

The children randomly selected and assessed in pre-primary predominantly turned out to be 5 years. A small proportion (19%) was aged less than 4 years old. Relatively older children of 6 years and above also happened to be among those assessed possibly because of the Rwanda's agenda of every child being in school. There were minor differences noticed between comparison and intervention groups.

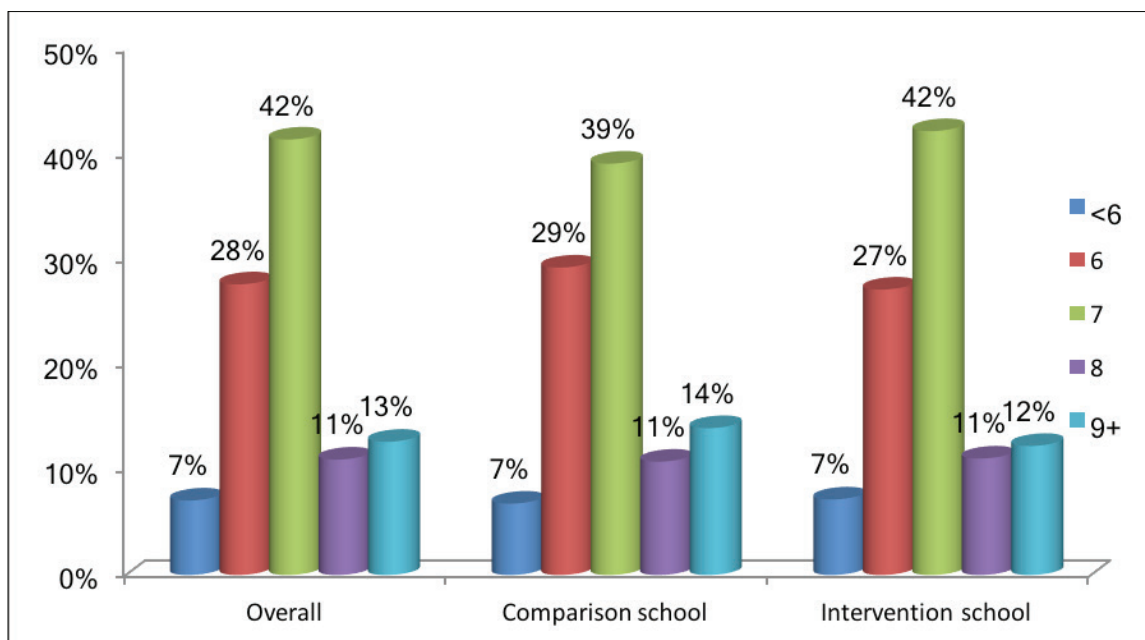
P1 Children

Fig. 4: Gender P.1 Children



There was almost an equal distribution by gender among the P.1 children assessed regardless of whether in the comparison or intervention groups.

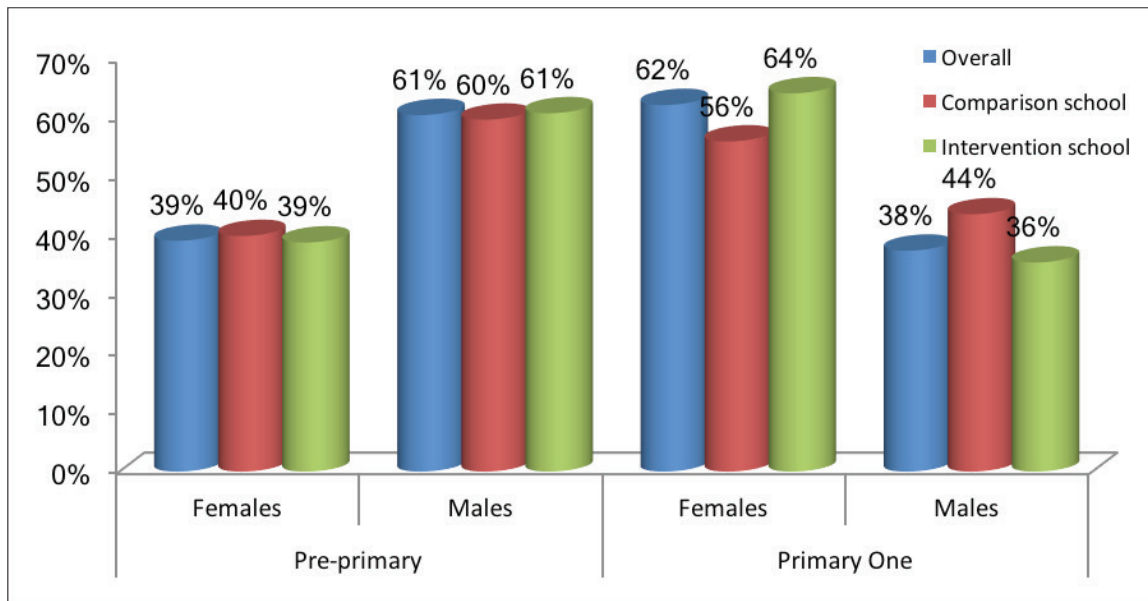
Fig. 5: Age of Children



The children randomly selected and assessed in P.1 predominantly turned out to be 7 years. A smaller proportion was aged less than 6 years old. Relatively older children of more than 9 years also happened to be among those assessed possibly also attributed to Rwanda's agenda of having every child in school. There were minor differences between comparison and intervention groups.

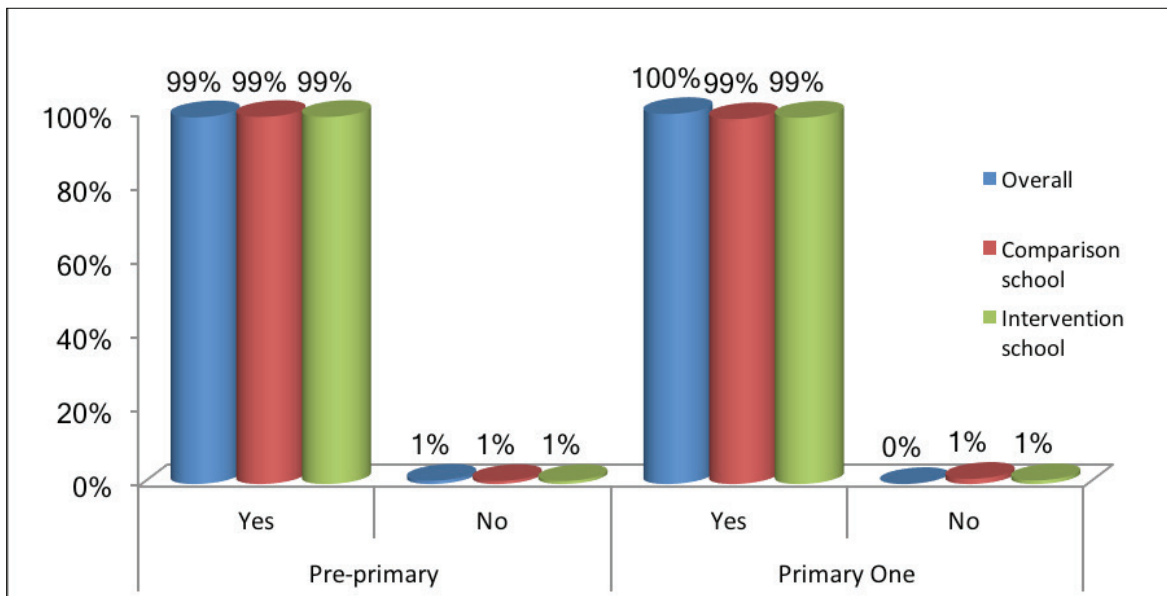
Caregivers

Fig. 6: Gender of caregivers



More male caregivers compared to the female parents were recorded for pre-primary children. Since contacts of caregivers were obtained from schools, this implies that male caregivers were keen to take and register their pre-primary children as compared to older P.1 children.

Fig. 7: Living with index child?



Almost all caregivers for both pre-primary and primary 1 in both comparison and intervention groups lived in the same home with their children.

Teachers

Thirty two pre-primary teachers were randomly selected for Key Informant Interviews from within some of the schools where pre-primary and primary children data collection was conducted.

The teacher duration of work at the respective school varied from teacher to teacher. Most teachers had been working in their school for less than a year with a few having been there for 3 years. Most teachers had completed certificate in primary teaching as the highest level. Very few had completed diploma and degree levels.

The majority of teachers interviewed taught nursery pre-dominantly but some doubled as teachers of other classes such as Primary 1, Primary 2 and Primary 3. Each teacher taught multiple subjects ranging between 2 and 5. The specific subjects taught included; Kinyarwanda, English, Mathematics/Numbers, Art, Religious education, Science, Social studies, Hygiene, Singing and Riddles.

Almost all the teachers interviewed reported to be teaching their pupils in Kinyarwanda. However the other languages like English and French were used to supplement in their teaching to a small extent. The teachers also reported to be communicating with their pupils outside the teaching time in Kinyarwanda.

The majority of the teachers interviewed had put multiple mechanisms in place to ensure they had good relationships with the pupils. They always attempted to get closer to the children as parents and friends so that they could both communicate, advised them to always be attentive whenever they were going to learn, they played with them, and become their friends.

“I try to show the children love in any way possible. I carry them as a parent though I am a teacher who teaches them other subjects but I take myself as a parent in front of them. That makes the children free with me and they like me. I listen to them and I explain to them what they ask me. I avoid getting angry in front of them so that they don't fear me” - GSK 18t.

Head teachers

Thirty two head teachers were also included for Key Informant Interviews in schools where pre-primary and primary 1 children alongside pre-primary teachers had been selected randomly.

Twenty seven head teachers and 5 Directors of schools were interviewed and their ages ranged between 36 and 43 years of age.

Majority of the head teachers/directors of schools had spent between 5 and 16 years in their positions while the smallest category of them had spent less than a year in their positions precisely i.e. 2 weeks and 5 months by the time of the baseline.

Head teachers emphasized their key roles as overseeing the teaching and learning, observing the teaching and learning that takes place, overseeing the wellbeing of the children, enforcing the rules and regulations that govern teaching in Rwanda and strategic planning for the schools and budget for finances that are received from the government. Other roles highlighted included; training teachers and evaluating training results, advising teachers and to monitor all staffs in their schools. While the Directors of studies' roles ranged from organizing the teachers tests by making a timetable for them, allocating teachers subjects to teach and providing teaching materials.

Interestingly, some head teachers highlighted that their roles also spanned to collaborating with the parents, communities and organizations on working together so that their schools could grow better.

Most head teachers and Directors of studies had reached university level as the highest level of education where they obtained degrees in mainly education and languages. The other degrees obtained at university level were management, accounting and rural development. The second highest level attained by the head teachers interviewed was Teachers Training College where they obtained diplomas in education.

When asked about which body funds the schools, 29 head teachers indicated government except 2 schools where controversy was reflected as the head teachers indicated that the Roman Catholic Church, REB and UNICEF funded their schools while one head teacher indicated that the funding body for his school was not clear.

6.2 Pre-intervention indicators along the selected key impact and outcome indicators

This section highlights pre-primary children, primary 1 children, caregivers, teachers and head teachers pre-intervention indicators.

6.2.1 Pre-primary Reading

This section presents the research findings in relation to the activities of the pre-reading skills assessments conducted among pre-primary children in the selected intervention and comparison schools.

The pre-reading skills assessments were done through administering various sub-task protocols that had been developed specifically for the tender ages of pre-primary children in Rwanda. The various subtask protocols had been developed based on research, existing pre-reading skills tools and more advanced assessments. This was due to the fact that the children could not be subjected to the standard Early Grade Reading Assessments as they are used to monitor reading progress and determine trends in reading performance so that children can appropriately be supported.

The sub-task protocols that were done for pre-primary included the following;

- Common vocabulary words which entailed pointing to body parts/items and placing a pen.
- Letter sound knowledge which entailed sounding as many English alphabet letters as a child would.
- Reading readiness which entailed color recognition.
- Listening comprehension which entailed children determining what part of the message needed immediate attention, organization and planning appropriate responses by way of answering questions asked after being read a short Kinyarwanda story.
- Oral identification of common objects in Kinyarwanda which entailed a child orally expressing themselves on the understanding of the flash cards that had been displayed to them.

Ability to identify colors: This is a sub-task that was used to assess pre-primary children's reading readiness. Different items/objects in different colors were shown to the children and thereafter, they were asked to mention the colors of the respective objects shown.

To aid children to be able to identify colors, familiar objects such as ripe tomato for color RED, green Orange fruit for color GREEN, bright sunshine for color yellow and black back bag for color BLACK were provided as may be seen below;

Table 2: Items that were used in the assessment of colors

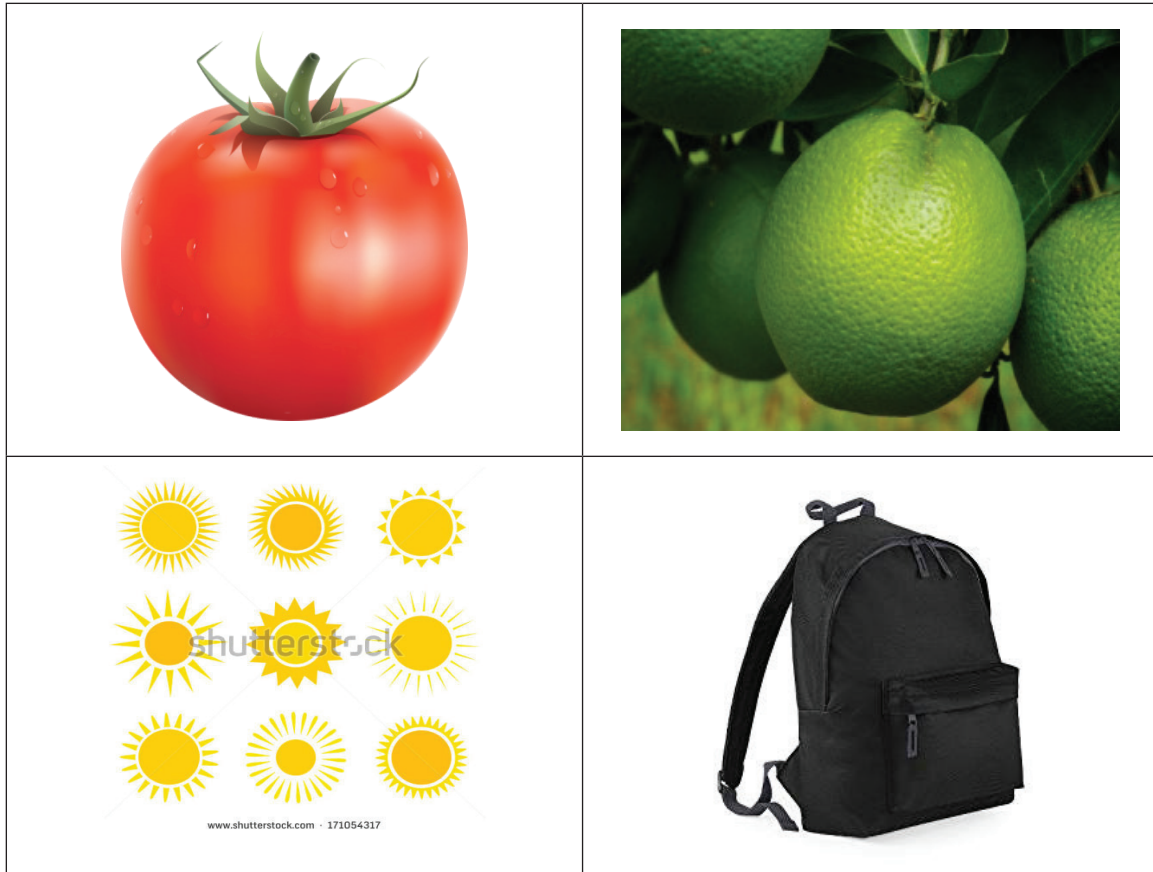
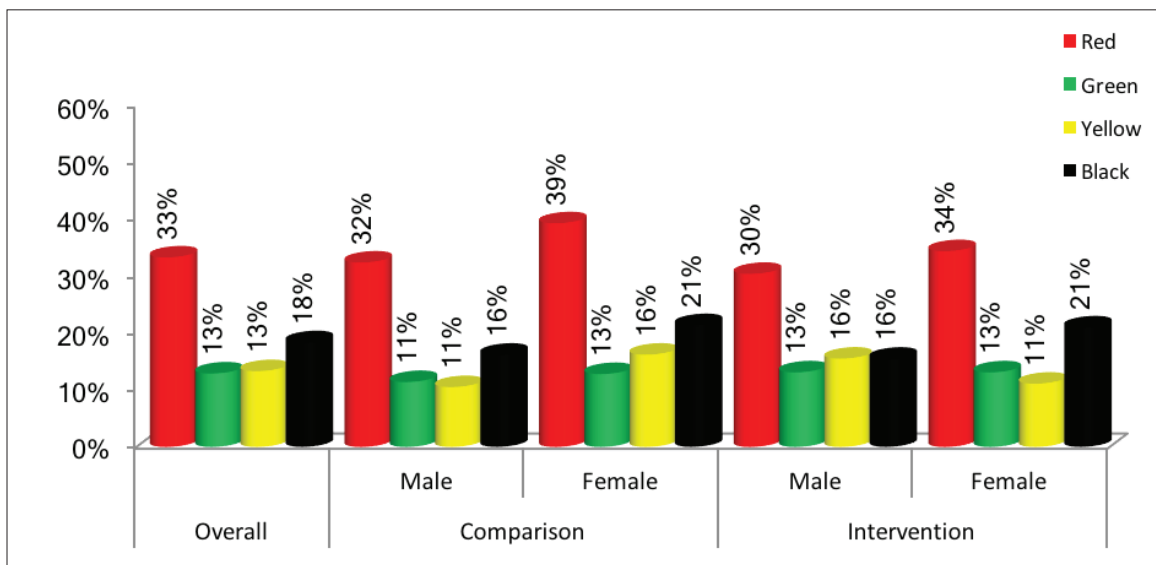


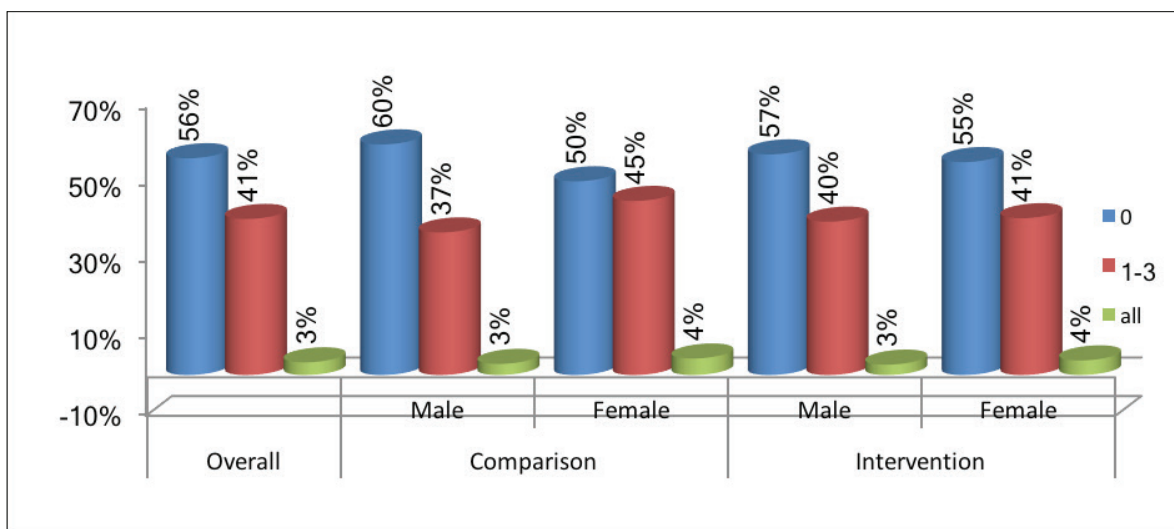
Fig. 8: Ability to identify specific colors



On the reading readiness activity for pre-primary, children were able to identify the red color mostly across groups. This was especially true for females as compared to male children in both groups. However, there was no significant difference in color identification by comparison and intervention areas.

The finding on females doing better than males is consistent with what happens in the general populations almost everywhere - Males are much more likely to be colorblind than females because the genes responsible for the most common, inherited color blindness are on the X chromosome. Males only have one X chromosome, while females have two X chromosomes. In females, a functional gene on only one of the X chromosomes is enough to compensate for the loss on the other. This kind of inheritance pattern is called X-linked, and primarily affects males. Inherited color blindness can be present at birth, begin in childhood, or not appear until the adult years⁸.

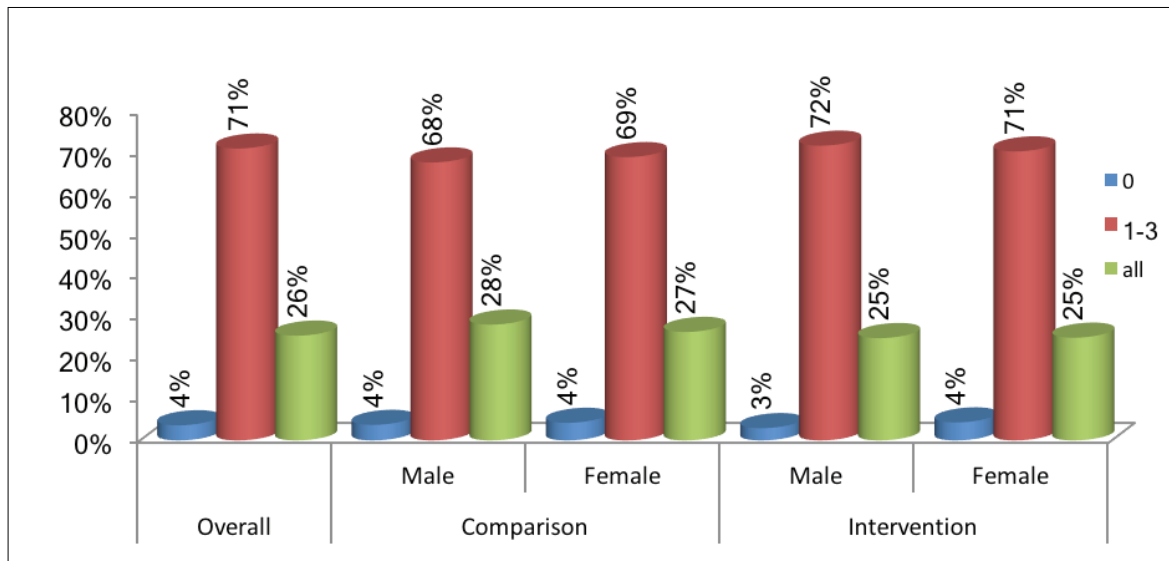
Fig.9: Ability for the children to identify colors



More females than males in the comparison schools like in the intervention schools were able to identify between 1 and 3 colors.

Listening comprehension: A listening comprehension assessment involved a short message that was read aloud by the assessors; pre-primary children then responded to the oral comprehension questions or statements. The purpose of this assessment was to see whether the pre-primary child could listen to a short message that was read and then answer several questions correctly with a word or a simple statement.

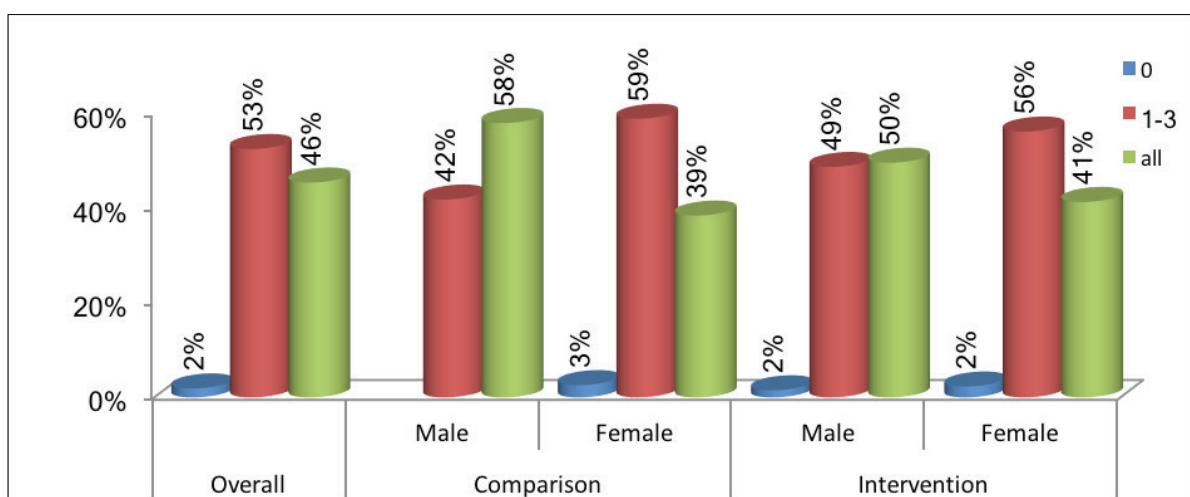
Fig. 10: Listening comprehension



Listening comprehension was overall, done very well in both comparison and intervention groups. Most children were able to respond correctly to between 1 and 3 items in the task. This good performance on the listening comprehension suggests that children did not have difficulty processing what they heard.

Oral identification of common objects in Kinyarwanda: In this baseline this subtask was defined as the number of common objects correctly identified. This is an indication of oral vocabulary development which is essential to children learning how to read. In this task, pre-primary children orally expressed themselves on the understanding of the flash cards of cow, chair, dog and ball that were displayed to them. The children watched and listened to what the assessors asked about then responded.

Fig. 11: Oral identification of common objects in Kinyarwanda

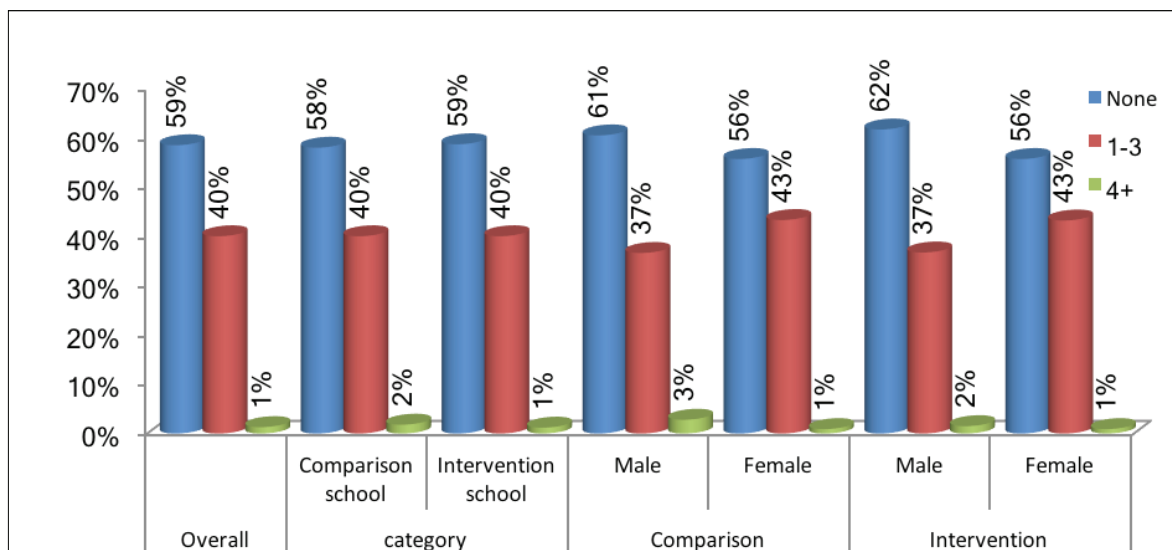


Oral identification of common objects in Kinyarwanda was the best done task among pre-primary children as 46% were able to identify all the objects correctly. This is an indication that there was good oral vocabulary development among pre-primary children. Very few (1.8%) were not able to identify any item in the task so to minimize the gap,

intense efforts should be directed to them because children who enter school with limited vocabulary knowledge grow more discrepant over time from their peers who have rich vocabulary knowledge⁹.

Common vocabulary words: Vocabulary is causally related to reading comprehension – knowing the meaning of the words in text is necessary to understand the message being conveyed. In this sub-task, pre-primary children were asked to point to common parts of their bodies and they were assessed on their accuracy.

Fig. 12: Common vocabulary words sub-task 1



On common vocabulary words sub task 1, most (59%) of the pre-primary children overall were not able to point to any parts of the body correctly in both comparison and intervention groups. 40% of the pre-primary children across comparison and intervention groups were at least able to point correctly to between 1 and 3 body parts. From the table below, the most common body part pointed to correctly by the children was the elbow (37%), followed by the chin (34%). On the other hand, the least body parts pointed to correctly by the children were the hair (2%) and the eye (3%). There were some minor statistical variations between comparison and intervention groups on the right body parts pointed to as may be seen below;

Table 3: Knowledge of body parts by comparison and intervention categories

Body part	Comparison	Intervention	All	P-value
Elbow	36.8	51.2	47.6	0.009*
Chin	33.6	39.5	38.1	0.116
Knee	23.8	32.4	30.3	0.014*
Toes	19.3	28.8	26.4	0.005*
Shoulder	18.4	27.3	25.1	0.008*
Arm	8.1	13.4	12.1	0.034
Eye	2.7	5.6	4.9	0.080
Hair	0.9	3.0	1.8	0.074
Other Items				
Wall	52.9	49.4	50.3	0.364
Notebook	17.5	16.7	16.9	0.776
Book	10.8	17.1	15.5	0.023*
Window	8.5	15.5	13.8	0.009*
Door	6.3	14.9	12.8	0.001*
Table	9.0	10.0	9.8	0.643
Pen	4.5	6.5	6.0	0.274

* Significant at $p < 0.05$

Under this task also, items other than body parts were asked. The common item pointed to correctly by the children was the wall (50%) while the least item pointed to correctly by the children was the pen (6%).

Common vocabulary words sub-task 2: In this task, pre-primary children were asked to place a pen somewhere and then assessed on their accuracy.

Table 4: Common vocabulary words sub-task 2

					Comparison		Intervention	
	Overall	Comparison school	Intervention school	p-value	Male	Female	Male	Female
In front of the chair	46%	37%	49%	0.001*	36%	38%	45%	54%
In front of you	41%	30%	45%	0.000*	32%	27%	39%	50%
Under the chair	20%	16%	21%	0.096	12%	19%	18%	23%
On the floor	13%	9%	14%	0.040*	4%	14%	13%	15%
On the table	8%	10%	7%	0.025*	14%	6%	8%	6%

* Significant at $p < 0.05$

In the common vocabulary words sub-task 2 of placing objects, the item of placing in front of the chair was best done by the pre-primary children followed by the item of placing in front of self across gender and across groups. There were some statistical differences between comparison and intervention groups on in front of the chair, in front of you, under the chair and on the table.

Letter sound knowledge: Only one child attempted this task so we did not compute any analysis for this.

6.2.2 P.1 EGRA Findings

This section presents the research findings in relation to the activities of the Early Grade Reading Assessments (EGRA) that were conducted among primary 1 children in the selected intervention and comparison schools.

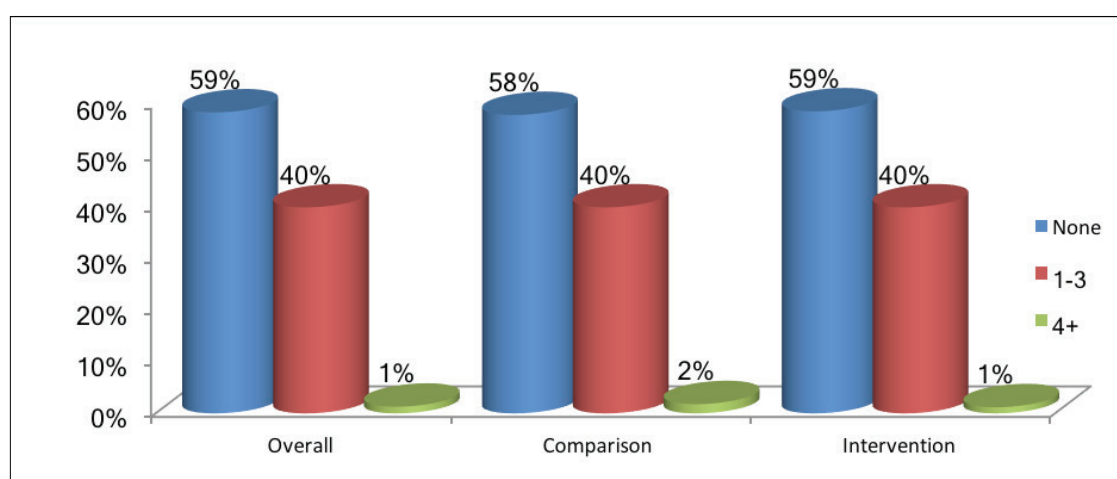
The EGRA assessments were done through administering various sub-task protocols that had been developed specifically for the primary 1 children in Rwanda. The various subtask protocols had been developed based on research and standard EGRA protocols.

EGRA was developed to be a sample-based “system diagnostic” measure. Its purpose is to assess student performance on early grade reading skills in order to inform ministries and programmes regarding system needs for improving instruction.

The sub-task protocols that were done for primary 1 children included the following;

- Common Vocabulary words which entailed pointing to body parts/items and placing a pen.
- Listening comprehension which entailed children determining what part of the message needed immediate attention, organization and planning appropriate responses by way of answering questions asked after being read a short Kinyarwanda story. The purpose of this assessment is to see whether the children can listen to a passage being read and then answer several questions correctly with a word or a simple statement.
- Letter sound knowledge which entailed sounding as many English alphabet letters as a child would. The knowledge of how letters correspond to sounds is another critical skill children must master to become successful readers.
- Blending which entailed children telling the sounds of as many syllables as they could.
- Segmenting which entailed listening to the words then telling all the segments there in.
- Non-word decoding which involved reading as many made-up Kinyarwanda words as possible. This is a measure of decoding ability and is designed to avoid the problem of sight recognition of words. Many children in the early grades learn to memorize or recognize by sight of a broad range of words.
- Familiar words which entailed reading as many familiar Kinyarwanda words as you can as possible. This allows for a purer measure of word recognition and decoding skills.
- Oral Passage Reading which involved reading a short Kinyarwanda story loudly, quickly but carefully. Oral reading fluency is predictive of later skills in reading and comprehension. It is a measure of overall reading competence: the ability to translate letters into sounds, unify sounds into words, process connections and relate text to meaning.
- Reading Comprehension which entailed removing the passage from the child's view after reading in less than 60 seconds and asking questions about what the child read. Adequate reading comprehension is the most important ultimate outcome of effective instruction in reading.

Fig. 13: Common vocabulary words sub-task 1a



On common vocabulary words sub task 1, most (59%) of the primary one children overall were not able to point to any parts of the body correctly in both comparison and intervention groups. Since vocabulary is causally related to reading comprehension as earlier indicated, a lot of supportive effort is required among the P.I lot so they can comprehend vocabulary and reading.

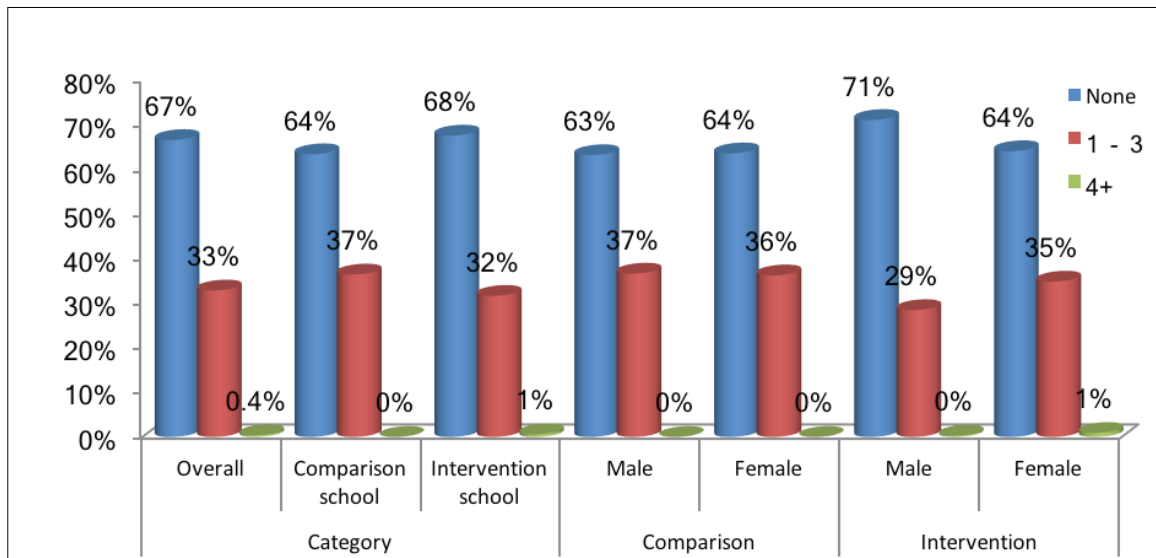
Table 5: Common vocabulary words sub-task 1b – placing objects

	Category				Comparison		Intervention	
	Overall			p-value	Male	Female	Male	Female
In front of the chair	26%	28%	26%	0.490	29%	27%	21%	30%
On the floor	12%	16%	10%	0.013*	21%	12%	10%	10%
On the table	6%	8%	5%	0.081	9%	7%	6%	4%
In front of you	3%	2%	3%	0.463	3%	2%	3%	3%
Under the chair	1%	1%	2%	0.232	1%	0%	1%	2%

* Significant at $p < 0.05$

In the common vocabulary words sub-task 1b of placing the pen, the item of placing in front of the chair was best (26%) done by the P.I children followed by the item of placing on the floor across gender and across groups. There were some statistical differences between comparison and intervention groups on the item of on the floor. Surprisingly this task was done poorly as compared to the pre-primary children. Further analysis revealed that the P.I children who had not attended school the previous year had even performed better than those who were repeating P.I and those who had attended pre-primary the previous year. This is unusual and may be an issue for further research though some studies reveal that some children acquire these skills independently, others require intense interventions, yet the majority of them learn with instruction.

Fig.14: Common vocabulary words sub-task 1b – placing objects



Overall, 67% of the children were not able to place the pen correctly, 33% of the P.I children were able to correctly place to between 1 and 3 objects while 0.4% placed to more than 4 items correctly. This was manifest of the lack of vocabulary skills among the P.I children. There were minor various across gender and groups.

Table 6: Listening Comprehension subtask 2

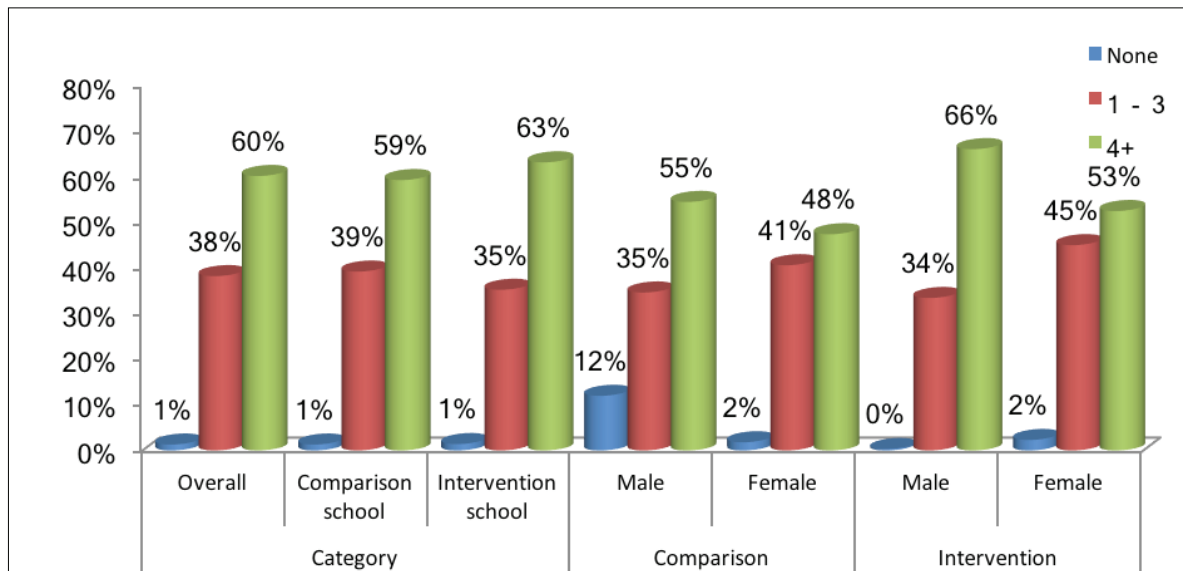
	Comparison		Intervention		Intervention		p-value	
	Male	Female	Male	Female	Male	Female		
Who are the characters in the story?	57%	53%	58%	55%	50%	61%	55%	0.156
Where did the rabbit wonder?	87%	90%	86%	93%	88%	89%	83%	0.026*
What did the rabbit met in the forest?	46%	43%	47%	46%	41%	51%	43%	0.027*
Why was the wolf running after the rabbit?	45%	48%	44%	54%	42%	49%	40%	0.009*
What did the rabbit do to save his life?	63%	63%	63%	68%	58%	72%	54%	0.000*
Is wondering good?	92%	94%	91%	96%	92%	92%	90%	0.317

* Significant at $p < 0.05$

This was a listening task but not an oral reading test. The Kinyarwanda story was read to the children and questions were asked thereafter.

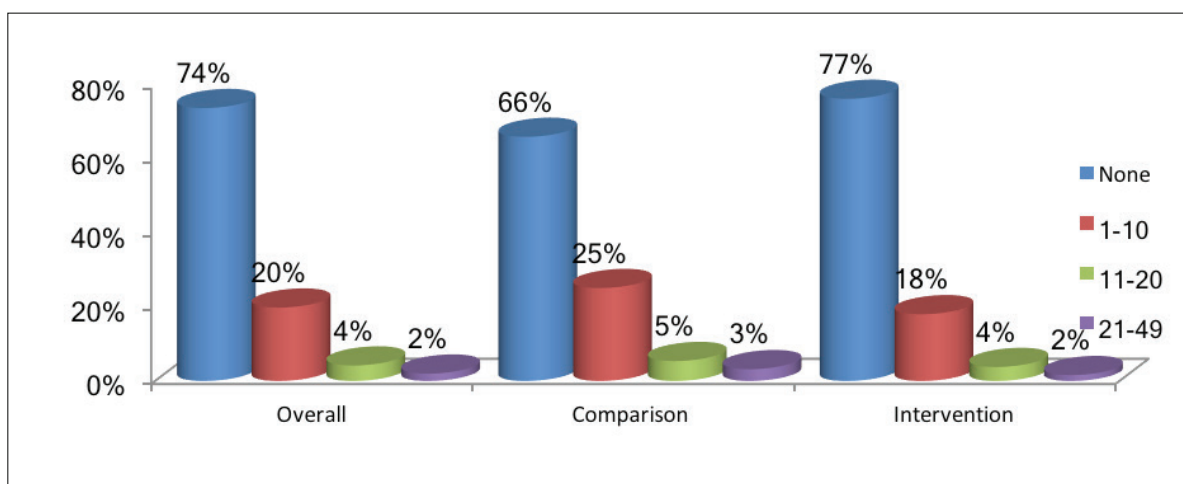
In this task, generally most P.1 children (92%) across groups were able to respond correctly and highly to 2 out of 6 questions, which would suggest that the P.1 children did not have difficulty processing what they heard. The following were the 2 questions that were done well; "Is wondering good?" followed by (87%), "Where did the rabbit wonder?". Statistical differences were only observed between males and females within the intervention group and they are the only ones reflected above.

Fig. 15: Summary of Listening Comprehension subtask 2



Overall, the subtask was well done by P.1 children as 60% across groups were able to correctly respond to 4 or more questions that followed the Kinyarwanda story an indication that the children had positive listening comprehension skills.

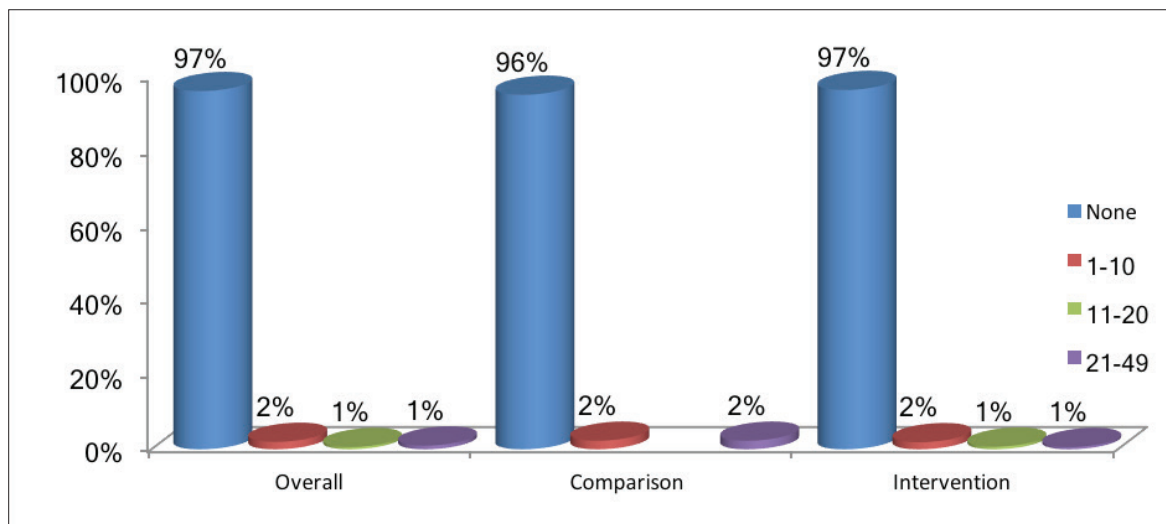
Fig. 16: Letter sound knowledge sub-task 3



Overall, 74% of the P.1 children failed letter sound knowledge predominantly especially in the intervention group. 20% identified correctly between 1 and 10 letter sounds out of 100 in 60 seconds. Failed constituted those children whose task timed out before they could attempt the task and those who identified wrongly letter sounds. All the primary 1 children were not able to sound any letter correctly so the task timed out except for 2 children

we therefore did not present this in this report. Let this be an area of emphasis by teachers and caregivers among the pre-primary lot.

Fig. 17: Blending sub-task 4



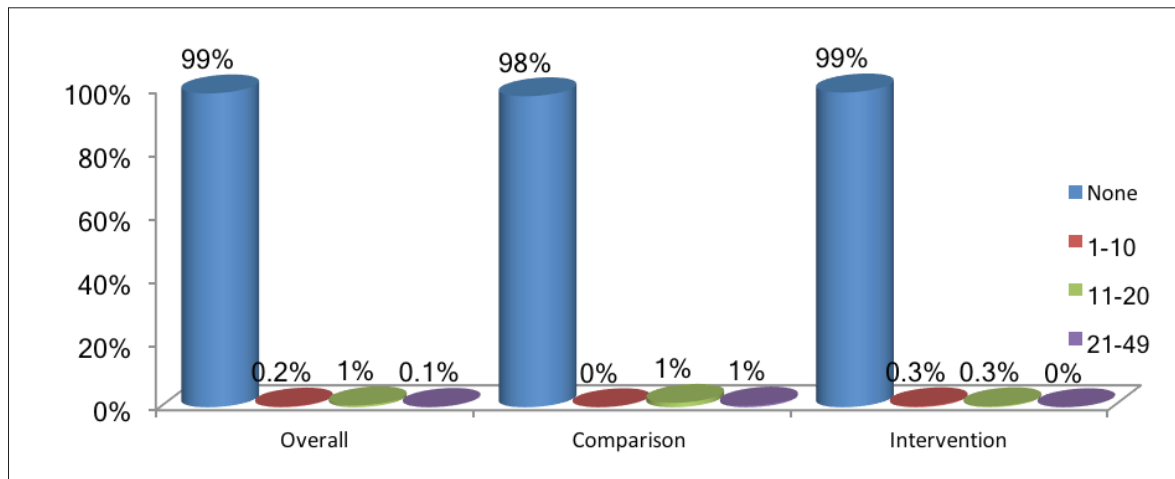
Almost all the P.1 children in both comparison and intervention groups failed the blending sub-task. Only 2% were able to identify correctly between 1 and 10 vowel sounds. Difficulties with the ability to blend are a symbol of struggling readers.

Table 7: Segmentation sub-task 5

	Overall	Comparison school	Intervention school
Ejo	17%	14%	18%
hano	23%	23%	23%
uyu	26%	22%	28%
gato	25%	24%	26%
Teta	23%	20%	24%
amano	28%	25%	29%
umuti	26%	24%	27%
amata	31%	26%	32%
guteka	30%	29%	31%
ijosi	31%	31%	31%

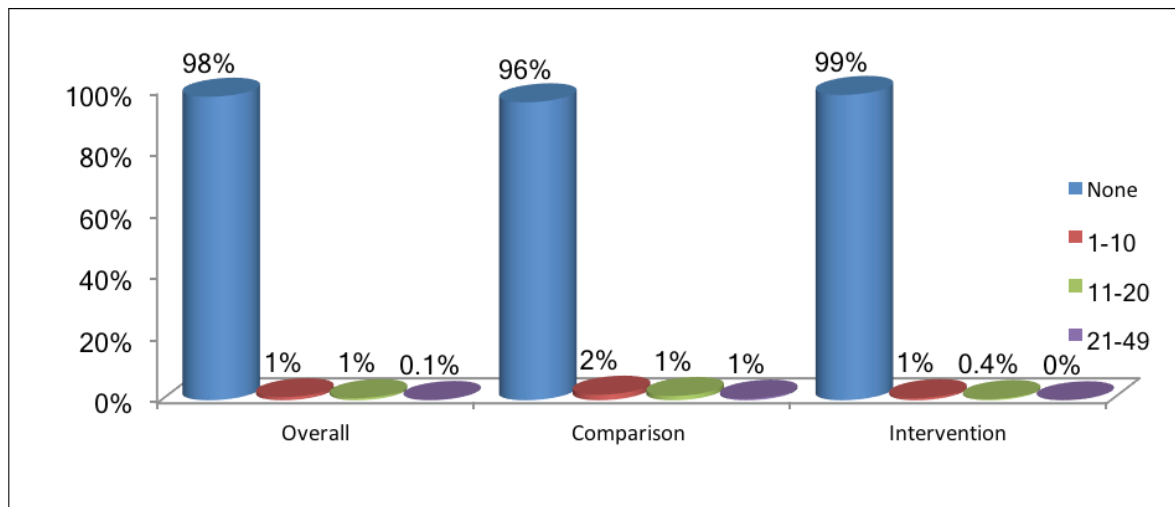
There was a good attempt on the segmentation task both in the comparison and intervention groups. All the phonemes were correctly identified in the following 3 out of 10 words; amata, guteka and ijosi in both groups. Phonemic awareness was low among the P.1 children and this could explain why they had trouble with alphabetic coding and thus had difficulty recognizing words¹⁰.

Fig.18: Non-word decoding sub-task 6



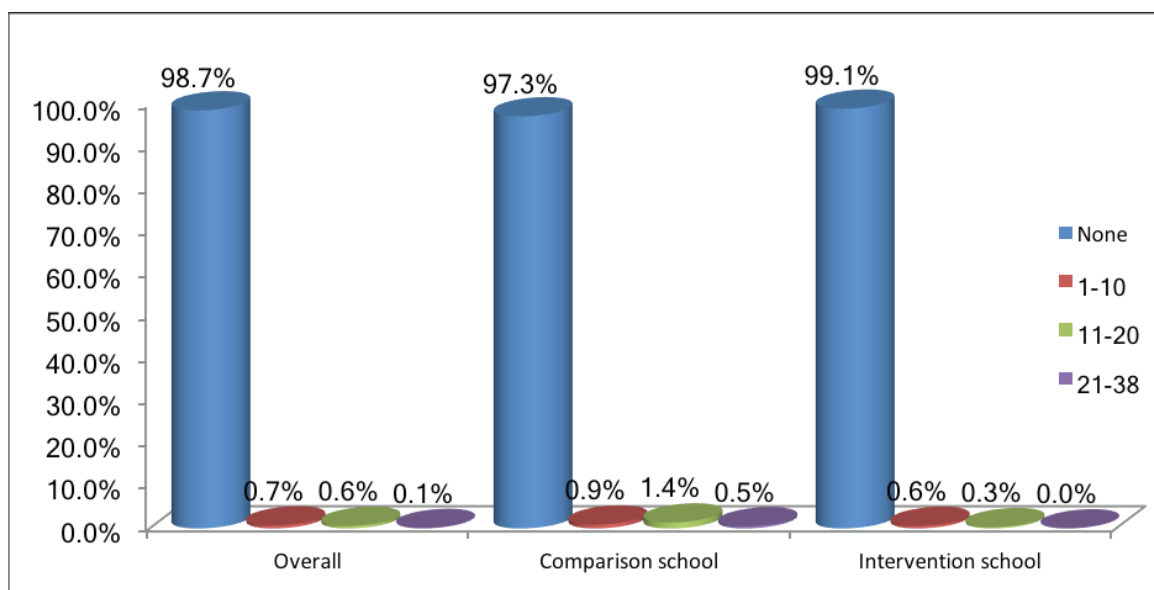
This was one of the worst performed tasks among primary 1 children in both comparison and intervention groups as almost every child failed to read correctly any of the 50 made-up Kinyarwanda words in 60 seconds so they lacked the early literacy skill of phonics/alphabetic principle which can facilitate the avoidance of the problem of sight recognition of words. The task either timed out before they could attempt reading or read the words wrongly.

Fig.19: Familiar words sub-task 7



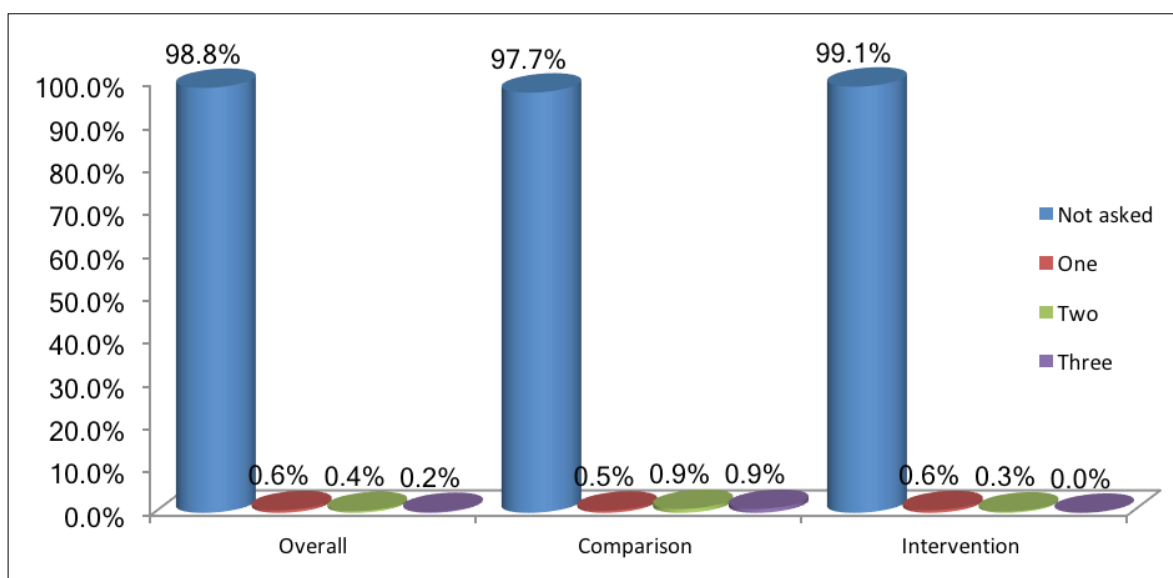
This was the second worst timed sub-task done among both the comparison and intervention groups as almost all (98%) the P.1 children failed to read the familiar Kinyarwanda words per minute; a manifestation of lack of word reading skills. The task timed out before they could attempt reading any familiar words for almost all.

Fig.20: Oral Passage Reading Sub-task 8a



Overall, 99% of the P.1 children in both comparison and intervention groups were not able to fluently (with accuracy) read any word in the short Kinyarwanda story of 63 words that was given in 60 seconds; a manifestation of lack of early literacy skill of fluency. Only 0.7%, 0.6% and 0.1% were able to read fluently between 1 and 10, 11 and 20, 21 and 38 words of the whole story in 60 seconds across groups respectively.

Fig.21: Reading Comprehension Sub- task 8b

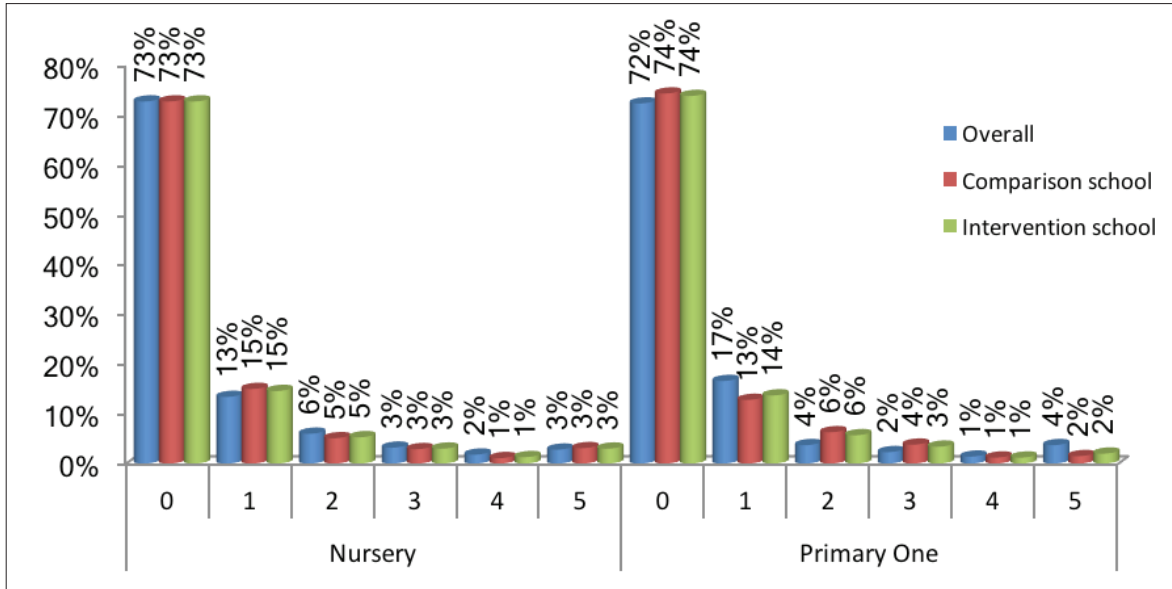


Since almost all the P.1 children were not able to read a single word in the oral passage, only 1.2% were asked questions that followed. This represents 0.6%, 0.4%, 0.2% of all children who were able to respond to one, two and three out of 5 questions correctly respectively; an indication of absence of the early literacy skill of reading comprehension. The following questions were asked, 1. Who are the characters of the story?, 2. Where did Muhire go?, 3. Why was Keza crying?, 4. What did Muhire do to help Keza? and 5. How do you think Keza felt after reaching home?

6.2.3 Caregiver Related Findings

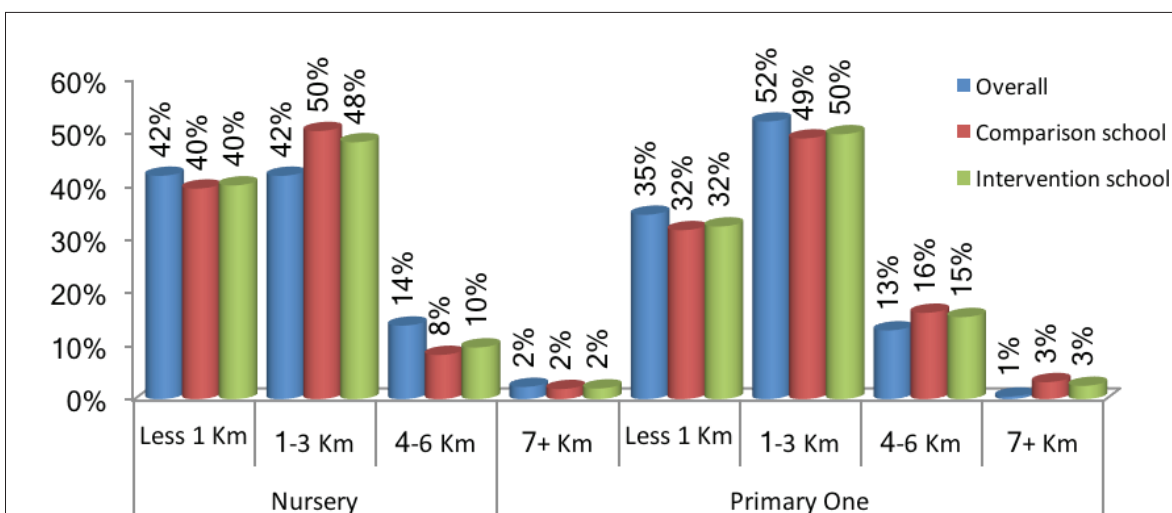
This section highlights the pre-intervention indicators of caregivers.

Fig. 22: How many days of school children missed in the last week?



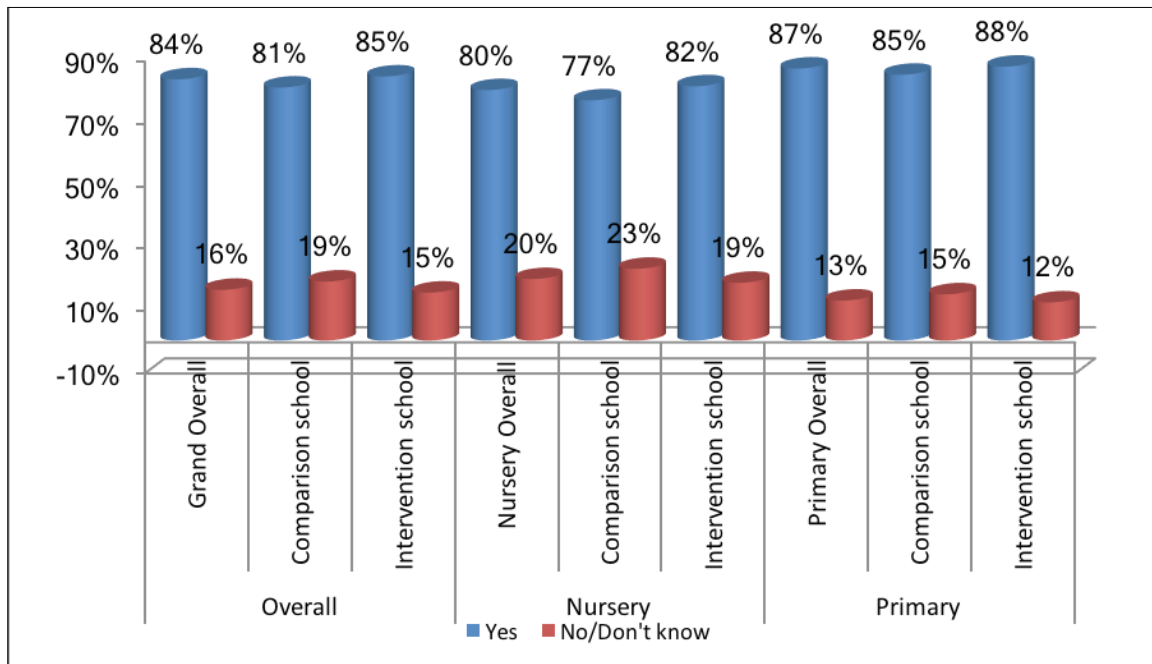
From the caregivers' point of view, most of the children be in pre-primary or primary, comparison or intervention, missed school in the previous week before data collection for a day which corroborated with the P.1 children's reports. Slightly more nursery children than primary 1 children in both comparison and intervention groups had missed school for 5 days.

Fig. 23: Distance to school



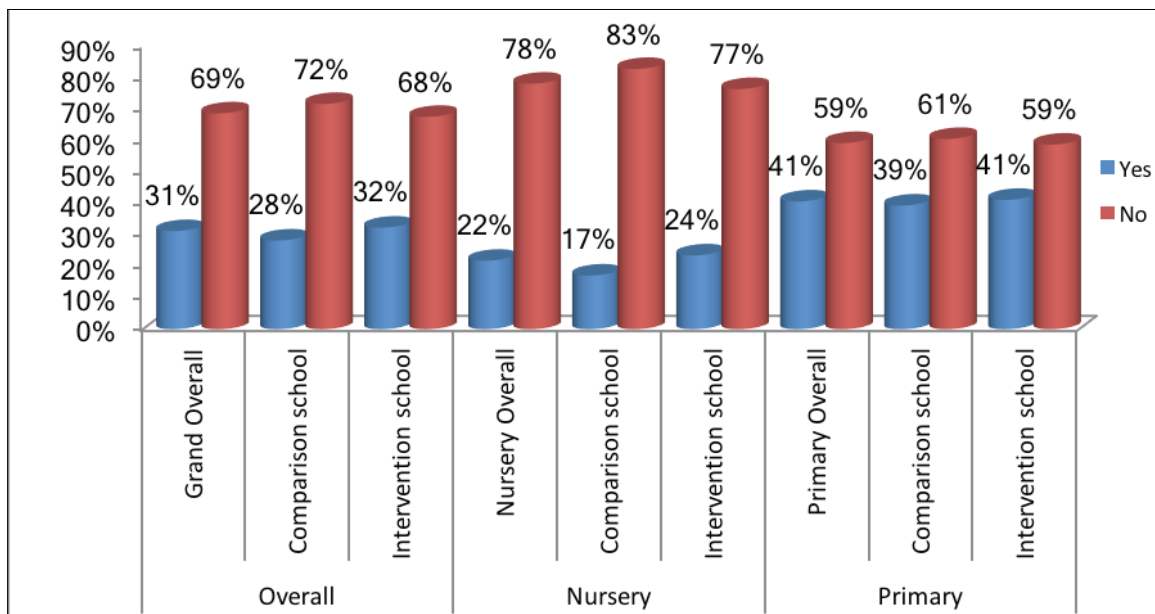
Children in pre-primary, primary, comparison and intervention groups mostly travelled between 1 and 3 kilometers to reach school from their homes. Some more pre-primary children travelled over 7kms as compared to primary 1 children. If not supported, this could affect the learning abilities of these children.

Fig. 24: Is the home/local language used at the school where your child....



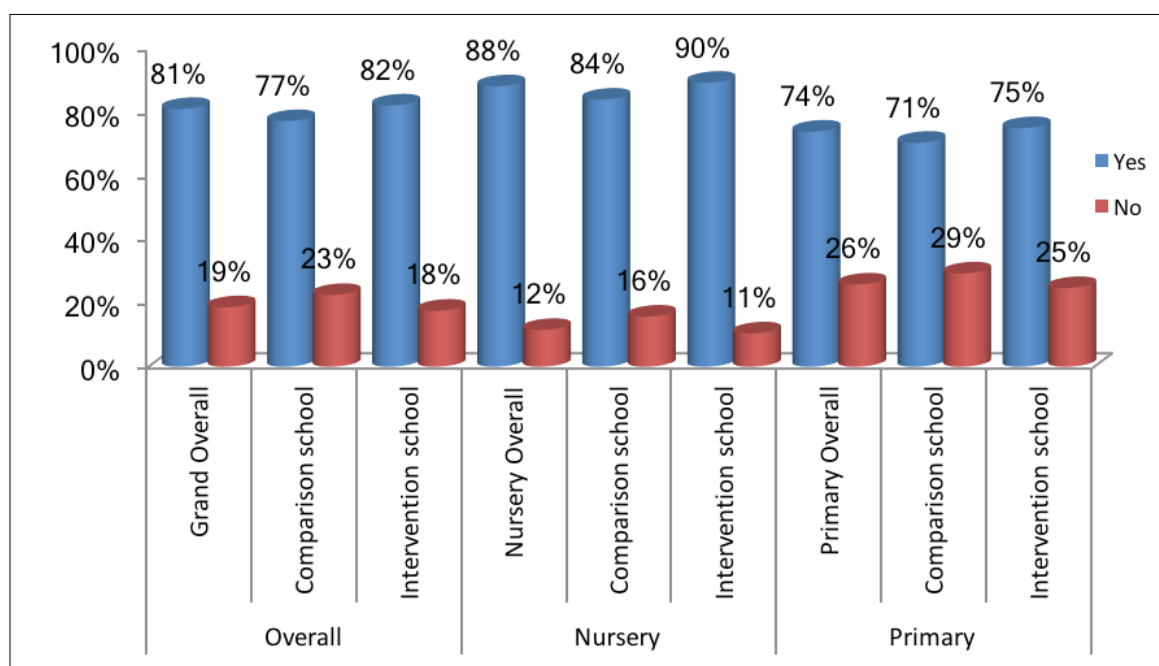
Majority (84%) of the caregivers indicated that the local language was used at the schools where their children attended. This is consistent with the government policy of using Kinyarwanda, the mother tongue as the language of instruction for all subjects up to the end of P3.

Fig. 25: Does your child ever have homework?



Overall, 31% of caregivers across both comparison and intervention groups indicated that their children ever have homework to do. There was more homework reported among the P.1 lot than the pre-primary lot.

Fig. 36: Does anyone help him/her with homework?



Of those caregivers who reported that their children ever had homework to do, 81% indicated that someone helped the children with the homework.

6.2.4 Teacher Related Findings

Challenges to learning how to read among pre-primary pupils: The teachers interviewed reported that the challenges pre-primary pupils face while learning how to read in school is that both boys and girls were not confident enough to participate in learning activities as they feared to interact or read with others but also feared to answer incorrectly on anything asked and took long to get used to the school environment. They also reported that the pupils in baby class were usually too young to read.

The teachers further reported that the lack of tailor-made classrooms in which to study and lack of learning materials like text books at home challenges the pupils when they go to school because they cannot learn easily. Plus most of the parents lack the necessary knowledge to assist the pupils in reading at home.

How the teachers assist the pupils to overcome these challenges: Several of the teachers reported that they usually take keen interest in all their pupils when teaching by watching out for certain pupils who are not usually active in talking or participating. They usually go to the pupils, talk to them individually and encourage them through use of games and correcting them when they make mistakes. Some further supported the pupils to love school and highlighting to them the importance of reading until they were comfortable enough to read with others.

The teachers reported that they resolve the lack of learning materials by improvising and sharing the available materials plus also encouraging everyone to participate in class and always borrow story books from other teachers or other children who have so that they can be able to learn how to read. It was noted also that the teachers heavily relied on using locally available resources such as black board in the absence of books.

Participation of boys and girls during the Kinyarwanda reading sessions: The majority of teachers indicated that boys and girls did not participate equally while they taught how to read in Kinyarwanda. It was noted that the boys were more active in reading than girls who tend to be withdrawn. The girls were however, reported to comprehend reading better especially with the help of pictures which is consistent with the findings of the study where there variations in some reading sub-tasks by gender.

How easy or difficult it is to teach reading in Kinyarwanda: Almost all teachers except 8 indicated that easy to teach reading in Kinyarwanda majorly because Kinyarwanda is the mother tongue of most pupils but highlighted it would be easiest if they had enough materials like text books and dealing with fewer pupils than they have currently.

“It is easy considering that Kinyarwanda is the pupils’ mother tongue but it becomes challenging with the big number of pupils in one class”- (GSA15t)

“It is easy in a way that I make my own reading materials that help me to teach but the challenge is the fact that I lack enough reading materials”- (GSK23t)

The teachers who indicated that teaching reading in Kinyarwanda was difficult highlighted the following reasons;

“What is hard is the letters of the alphabet. It is hard for a child to grasp them because there are children who forget easily and it calls to repeat for her every day. It is difficult since the pupils lack books to read and also the parents are more interested in their children learning English instead of Kinyarwanda”- (RUB11t, GSB04t, GSC10t, NTE13t, GSK18t).

“It’s a little difficult since this district is close to Congo and therefore some pupils speak Swahili. We need pictures to show them while teaching them Kinyarwanda and this helps them to learn the language easily”- (UBU24t, MBA05t, GSB09t)

6.2.5 Head Teacher Related Findings

Observation visits per Kinyarwanda teacher (Pre-primary): On average, most head teachers in the different schools visited, conducted between 1 and 2 observation visits per week. One head teacher though observed the Kinyarwanda teachers thrice a week while one did not have a routine of observing the Kinyarwanda teachers at all in a week.

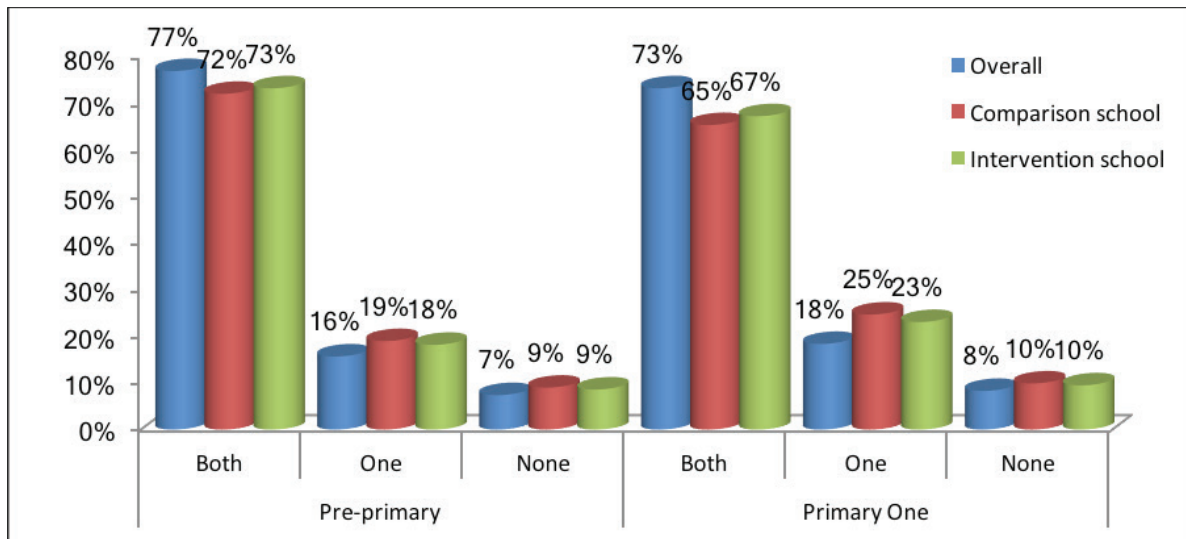
How the head teachers provide feedback to teachers based on their observations: Most of the head teachers indicated that after the observations, they invite the teachers that had been observed for a one on one talk to provide feedback.

6.3 Aspects of behavior that are required to achieve the outcomes of the intended interventions

This section highlights findings relating to aspects of behavior among primary 1 children, pre-primary children and their caregivers.

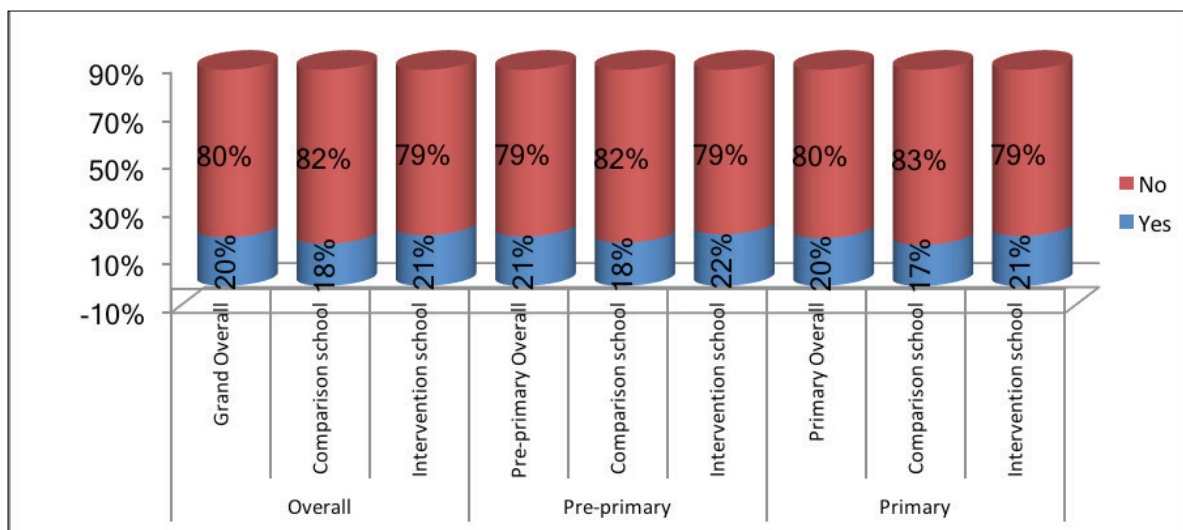
6.3.1 Caregiver Related Findings

Fig. 27: Living with both biological parents?



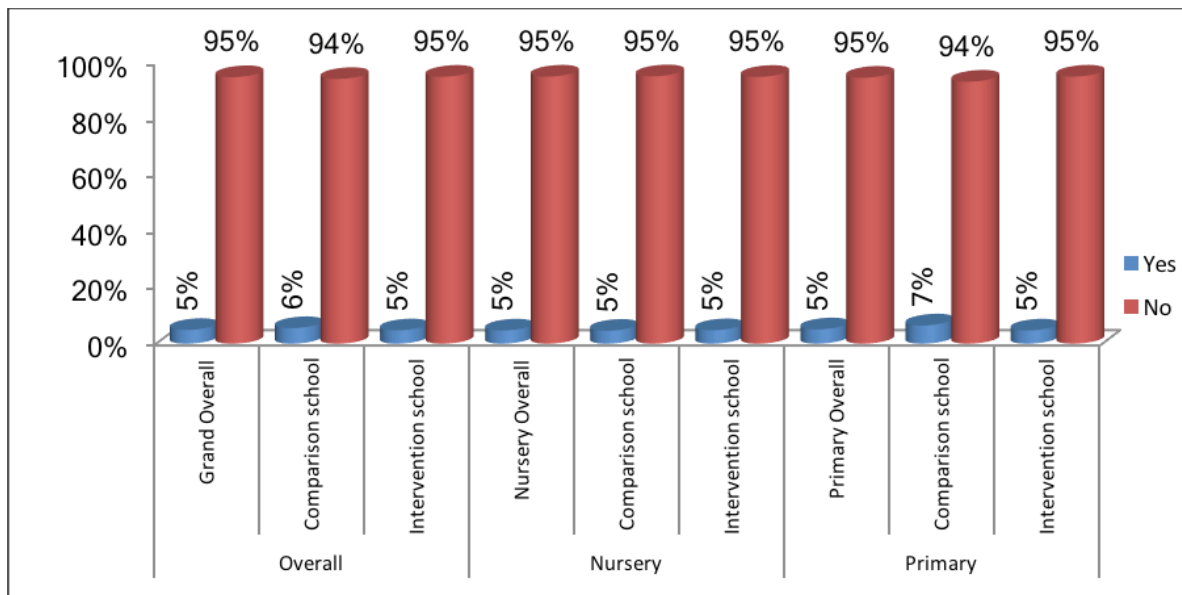
Across pre-primary, primary, comparison and intervention groups, most children were living with both their parents. There were some few homes in all categories where children lived with one parent and others where they lived with none of their biological parents.

Fig. 28: Ever engaged in 4 or more activities to promote learning and school readiness in the last 3 days?



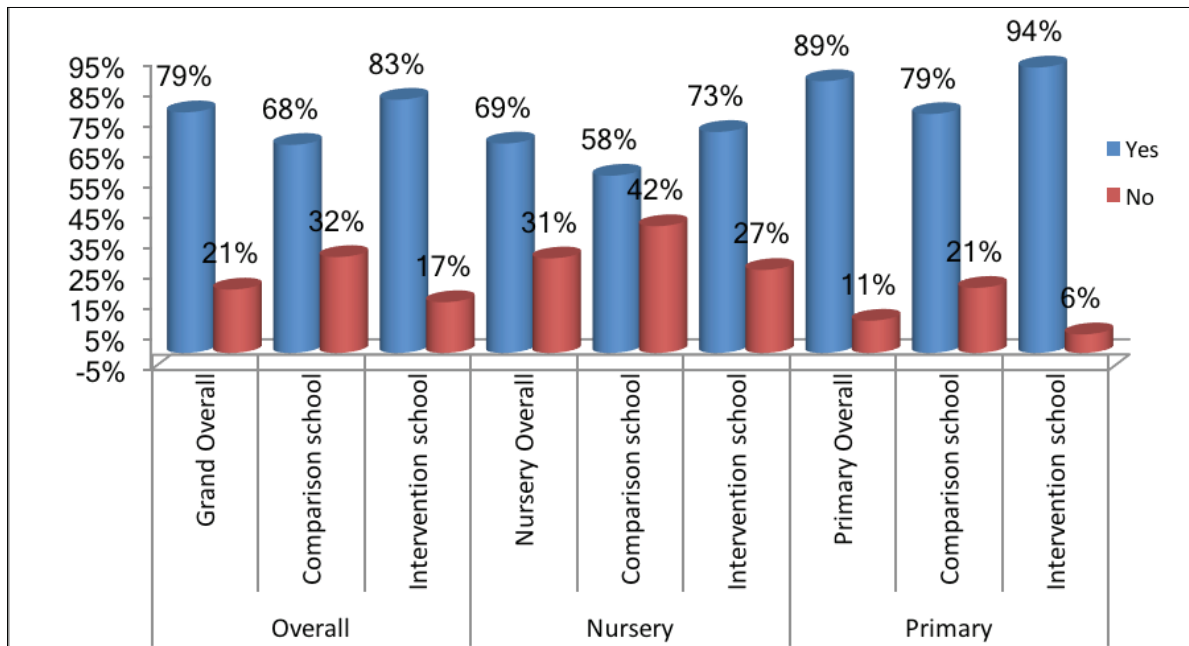
Overall, most (80%) caregivers in both comparison and intervention groups did not engage in 4 or more activities to promote learning and school readiness in the last 3 days. Particularly for the pre-primary, slightly more caregivers in the intervention lot (22%) than in the comparison lot (18%) engaged in 4 or more activities to promote learning and school readiness in the last 3 days. This is an aspect to improve given that multiple studies have shown that parent involvement can improve children's' behavior, attendance, and achievement in reading and academic excellence¹¹.

Fig. 29: Does your child have 3 or more reading books at home?



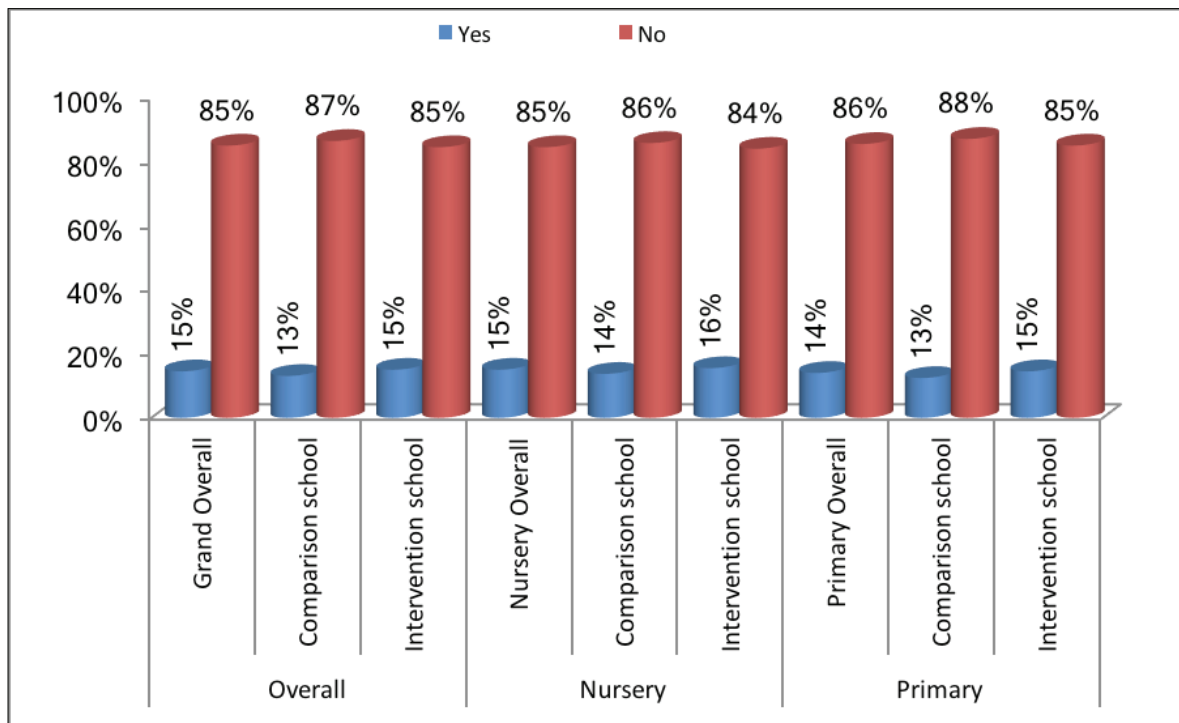
Almost all caregivers (95%) across both comparison and intervention groups reported that their children did not have 3 or more reading books at home.

Fig. 30: Does your child read books at home?



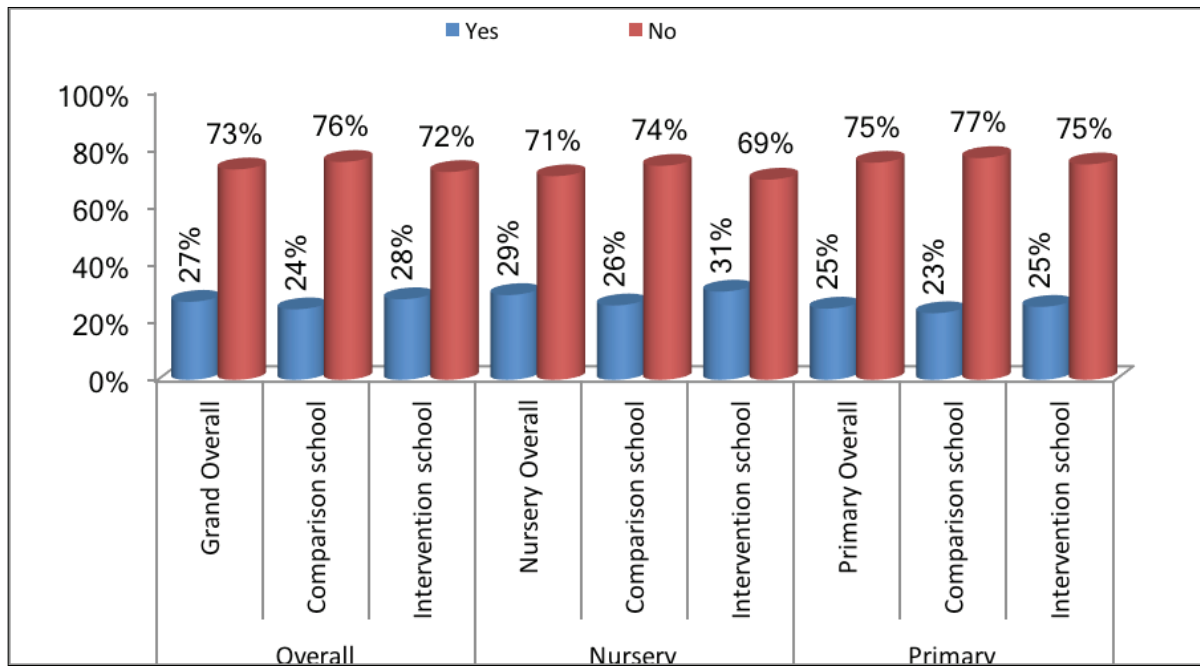
Surprisingly, 79% of the caregivers reported that their children read books at home despite the limited books available reported above.

Fig. 31: Does your child have any other reading materials at home?



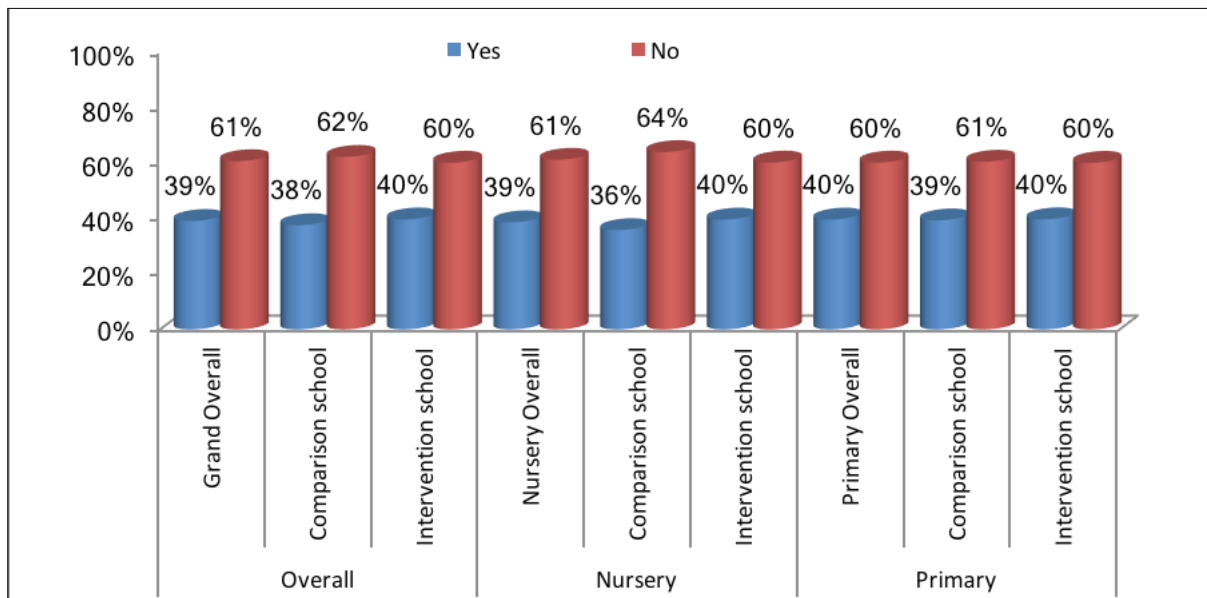
There was overall limited (15%) availability of other reading materials in homes reported by caregivers across both comparison and intervention groups.

Fig. 32: Do you read some of the books to your child at home?



Below half (27%) of the caregivers across the comparison and intervention groups indicated that they read some books to their children at home.

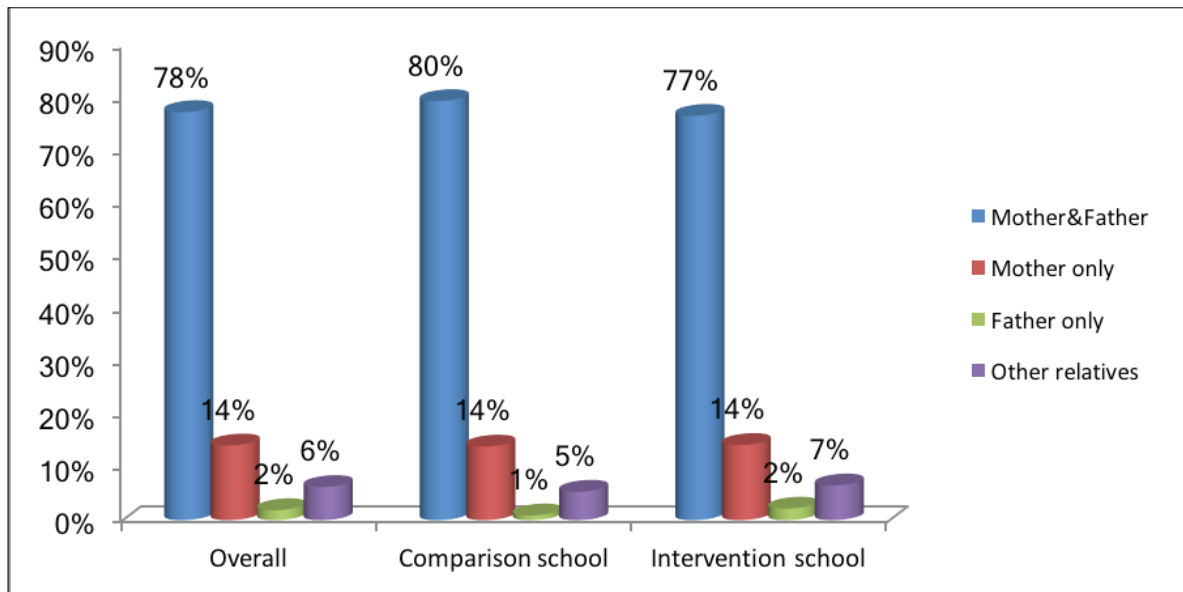
Fig. 33: Do you ever give your child any assignments at home to enable him learn how to read?



Overall, 39% of the caregivers across both the comparison and intervention groups reported to give some assignments at home to enable their children learn how to read Kinyarwanda.

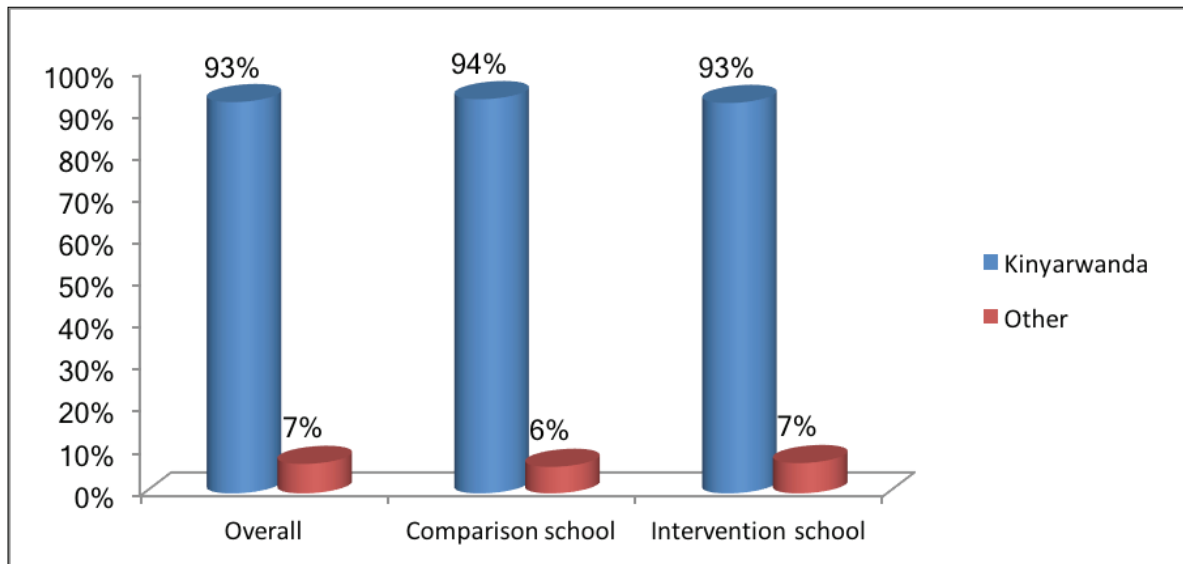
6.3.2 Primary 1 Children Related Findings;

Fig. 34: Who the P.1 Children lived with



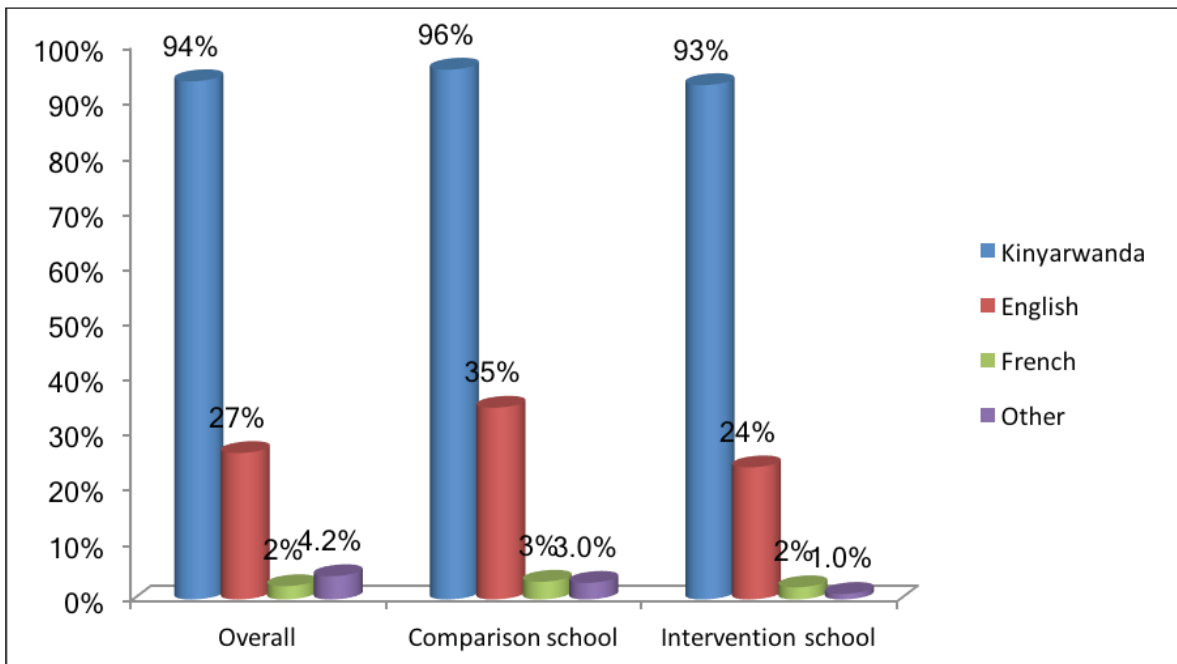
Majority of P.1 assessed children (77%) lived with both parents. No significant differences detected between comparison and intervention groups.

Fig. 35: Language spoken while at home



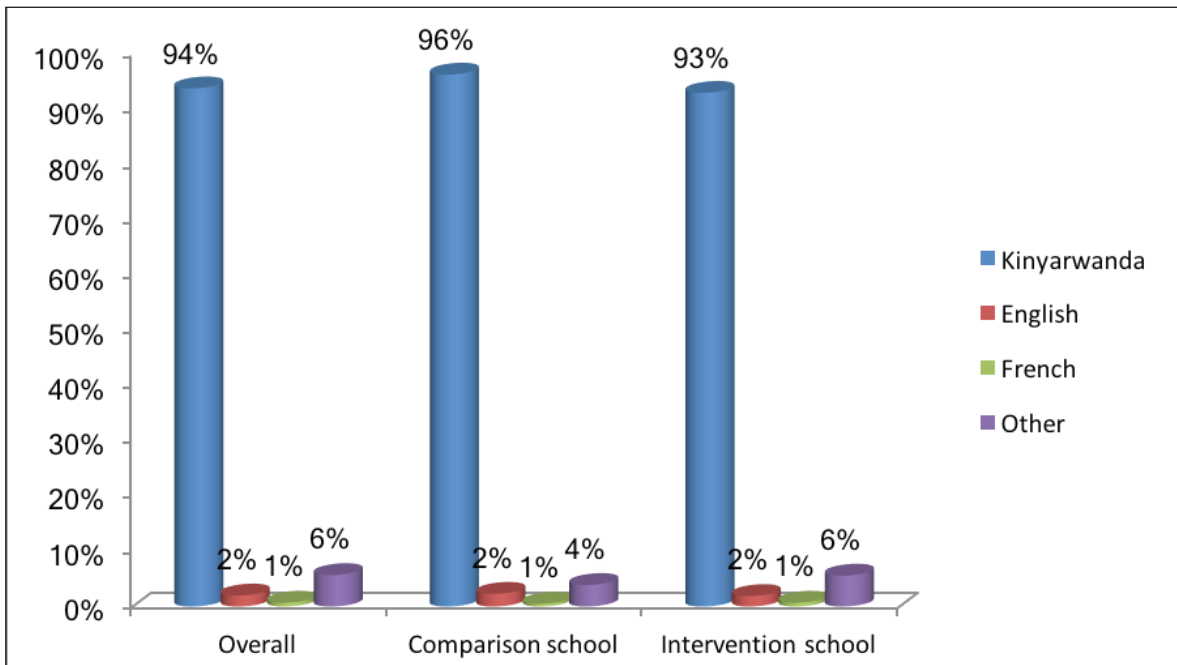
Almost all P.1 children (93%) used Kinyarwanda while at home. No major differences between the two groups.

Fig. 36: Language spoken while in class

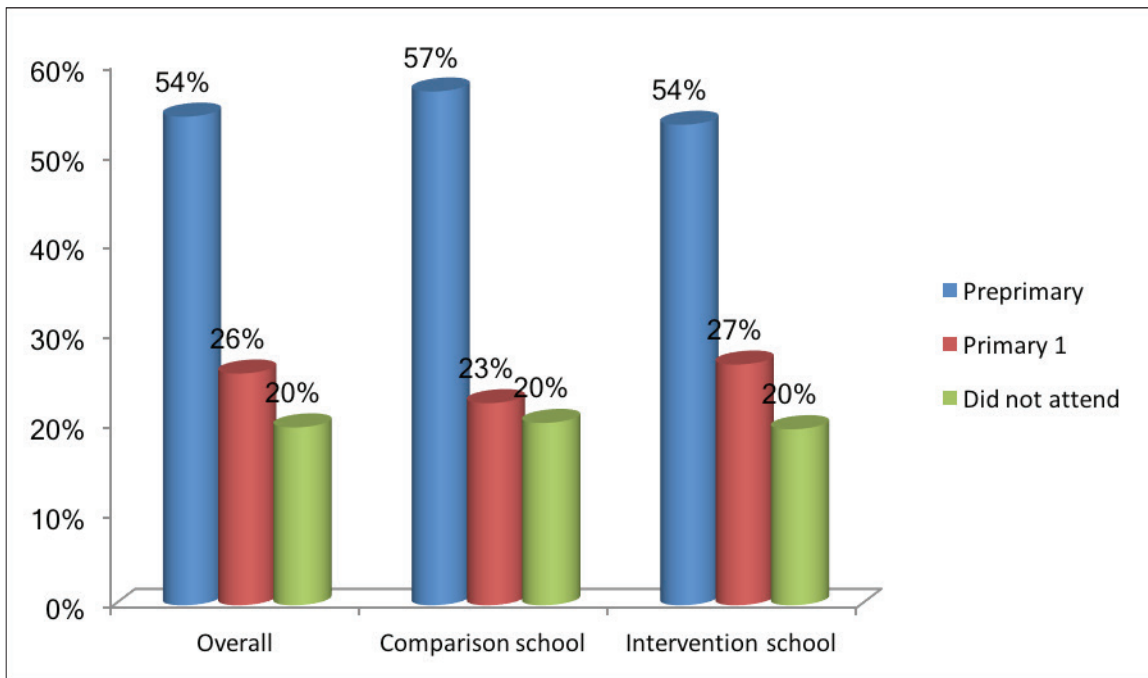


The P.1 children assessed spoke different languages while in class. The majority though spoke Kinyarwanda. In the comparison lot more children (35%) spoke English more than the intervention lot (24%). This was a multiple response question.

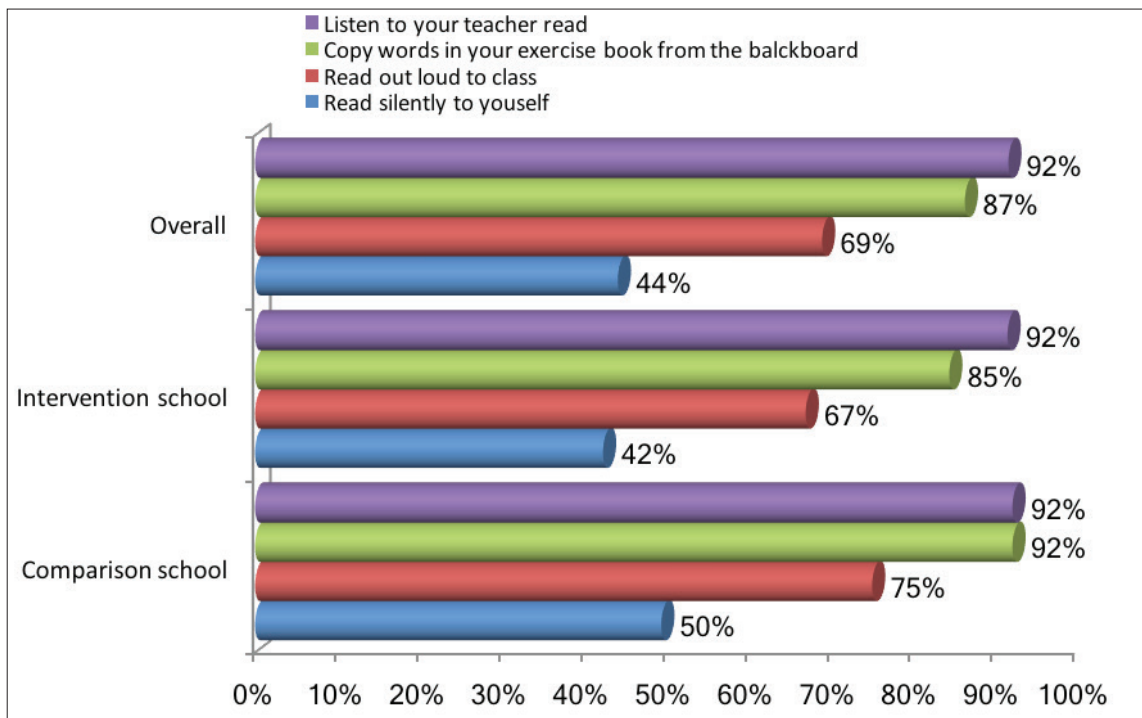
Fig. 37: Language spoken while playing



Kinyarwanda still emerged as the language commonly spoken by P.1 Children while playing in both the comparison and intervention groups.

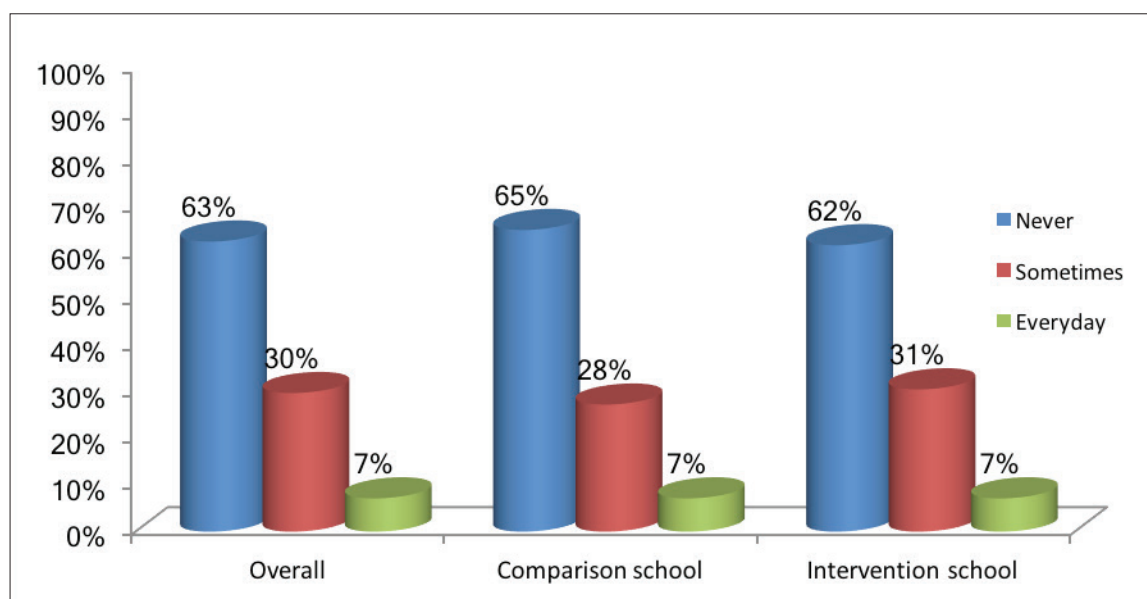
Fig. 38: Class attended last year

Over half of the P.1 children assessed attended pre-primary the last year in both comparison and intervention groups. 23% were repeating class in the comparison group while 27% were repeating class in the intervention group. A reasonable proportion across groups did not attend school the previous year.

Fig. 39: Culture of reading

The P.1 children be it in the comparison or intervention group listened to their teachers read and copied words in their exercise books predominantly. The culture of reading silently to self was found lowest (42%) in the intervention group as compared to 50% in the other.

Fig. 40: Frequency of reading practice at home



Most P.1 children in both groups never practiced reading at home. Only 30%, 7% of the P.1 children in both groups were practicing reading at home sometimes and every day respectively.

6.4 The capacity levels of existing systems in schools for effective support delivery of the programme

6.4.1 Teacher Related Findings

Consultation: When teachers were asked about whom they consulted in case they needed help with their teaching, the majority reported that they consulted their respective school administration which comprised of head teachers, deputies and directors of studies. They also consulted their fellow teachers in some instances.

Class sizes and challenges faced in facilitating learning how to read in Kinyarwanda:

All the participating teachers pointed out that the biggest challenge they usually have are large numbers of pupils in classes and this limited the way they facilitated learning how to read in Kinyarwanda, for example in one school there were 79 pupils for 2 classrooms implying an average of 40 children per class to be managed by a single teacher. They indicated their inability to manage and reach every pupil individually and as such some of the pupils usually go home minus participating in class activities. The available reading materials like story books were also not enough for the big numbers of pupils.

“The first problem is that I am not able to evaluate everyone because of their number. Because they are many, I cannot move to all of them, Time for the lesson ends when I haven’t evaluated all children” - (GSA15t)

“The challenge is when they all need my attention at the same time and yet they are many” - (RUYI4t)

“The children are many and they are never seated in one place, it becomes hard to manage them” - (GSBI 6t)

The teachers attempted to overcome the challenges of class size by predominantly creating study groups for the pupils. Through these, the pupils are made to sit together so that they can learn and move at the same pace and later ask questions all together for all the pupils to benefit.

“I put them in groups for example, if they are 50 children I make groups of 10 children so that I can control them well. The few books are shared and the lesson goes well” - (GSCI 7t, GSKI 8t)

“I try so much to group them; the quiet pupils sit near me so that I can easily reach them and I also utilize the blackboard as much as possible where everyone can easily see” - (BYU03t)

“I normally put them in groups. I first give the books to a few groups while others are playing and after I call the others to use the same after these have finished” - (GSK08t)

“I put them in groups and they work in groups then each group talks about their things. It becomes easier because they talk about what they have learnt in their groups and it helps to finish the lesson in time and we reach our goal” - (GSAI 5t).

Disability among pre-primary children: Below half the participating teachers indicated that a few of their pupils had difficulty in seeing, hearing and understanding instructions. Further, some few teachers reported that some of their pupils tended to take long to understand but this was indicated to be less than 3% of their respective classes.

The teachers that indicated that they had children with disabilities in their classes did not have any standard way in which they supported the children with disabilities to learn how to read in Kinyarwanda appropriately. They simply reported being close to the children with disabilities, for those that cannot see and hear well, they write bigger letters, draw bigger pictures on the board and they make them sit in front of the class so that they are able to hear and see what is supposed to be done so that they understand easily.

Comprehension of competency-based curriculum among teachers: There were mixed views from the teachers about what they believed competency-based curriculum was. These included the following:

“It’s about a pupil putting in practice what they learn: The advantage is that the system helps a child not to forget what they have learnt in class, the disadvantage is accidents for example where a child may get burnt during mechanical work” - (BYU03t)

“What I know is that you get to know a child who has a disability; you know whether a child is sick and you put in cross cutting issues. You know how the child is doing and you know the level in which the child is, you know how to look after the child, when it is cold you know how to carry the child, if the child is sick, I can put him in a certain level then I keep teaching him little by little and he moves with the rest” - (NTEI 3t)

“What I know is that now the teacher guides the children and they work hard. The teacher has the duty to only guide the children and the children are the ones who work. The first good thing is that the children get enough skills because they do the work. Like us who have many children you put them in groups and give them what to do. They do it in groups and in that group one child comes to show us what they have done. It helps to take less time and the lesson is understood well. However, the bad thing I can say about it is that there is like a child who cannot learn from a group that even when other children explain to him, he wants the teacher to teach him so he can understand. This calls for teaching him on the side “ - (GSA15t)

“You teach a child according to their ages and also from that little that he might know you help him to know it more and you know where to begin from to teach him other things”- (EPGO1t)

“We leave children to read on their own and discover new things. The good thing with this system is that it awakens the pupils because they see, observe and be able to put it in use”- (KAR02t)

We teach children using plays the advantage of using it is that children understand quickly because they have done it through games - (GSB04t)

“It is more of participatory teaching where the whole class is active and this makes the child sharp because he gets different skills in all things, communication skills, writing skills. It helps the child to get quality education “ - (GAK07t).

“What I know about it is that it is the child that participates more than the teacher. The teacher is there only to guide the child not like when the teacher was the only one who would talk. This makes the child more interested in the lesson”- (GSC10t).

“What I know is that you teach children according to their abilities for example we begin with learning how to talk. This helps the children understand and learn well” - (RUB11t)

“What I know about Competence based curriculum is that a student should know something and put it into action. This helps the children learn better than just memorizing what they learn but the disadvantage is that it requires enough reading materials which we don't have here”- (MUT12t).

Evidence-based pre-primary reading materials used by teachers while teaching reading

in Kinyarwanda: The participating teachers reported books especially those that had pictures and drawings as the major evidence-based pre-primary reading materials used while teaching reading in Kinyarwanda to the pupils. Story and alphabetical books were also highlighted as being of great importance.

Half the teachers further reported that traditional reading and teaching materials such as black boards, cut out cards with illustrations, clothes, small sticks and stones were very instrumental in teaching reading in Kinyarwanda to pupils.

“Manila papers to draw pictures for illustrations. When I want to teach them how to read, I use flash cards and give them to pupils”. (UBU24t).

"I use books, I use papers which I make myself and cut them and use pictures which I draw. These help the children to identify themselves quickly and also get interested in the lesson"- (MBA05t).

"We cut cards that have letters, we use clay-like kits and also tell them to mold something like a letter, cutting letters from papers. When the kid is cutting a certain letter from paper, it makes him/her grasp the letter more than just seeing it but these are not long lasting since paper or clay can easily be destroyed by these kids"- (RUL06T).

"We use stones and we write down. I bring like bottle tops, small cloths and many other things I make myself. These help children know how to differentiate the colors"- (PSK20t).

Gender-sensitive pre-primary reading materials used while teaching reading in

Kinyarwanda: Almost all teachers did not have specific gender-sensitive pre-primary reading materials. They reported to be using story books especially those that had pictures and drawings while teaching reading in Kinyarwanda for both boys and girl. No particular titles and authors were echoed when asked but they indicated that they were given by the government, REB, VSO and Save the Children.

"There are story books they gave us which keep showing the work of boys and girls and that boys and girls are the same"- (MBA05t)

Two of the teachers relied on songs and a book that promoted equality among both genders.

"We use songs to teach them that they are the same and they learn to read together without discrimination"- (EPR19t)

"I use a text book called "imboneza mubano". It helps a child understand more about gender-equality"- (BYU03t).

Basis for planning for lessons on development of reading among pre-primary classes: The majority of the teachers reported that they used teachers' guides, scheme of work and the curriculum to plan for their lessons on development of reading among pre-primary classes. The teachers try to use the scheme of work.

"Whatever I teach I get it from the teaching aids, and then from the curriculum plus the new teaching aids we were given, I use pictures and books where they are necessary". (GSB04t, GSK08t)

"Following the competence based curriculum, I use the teacher guides to see how I can make the scheme of work. I make it and I get from it the lesson I will teach that day". (NTE13t)

Some teachers however highlighted that much as they heavily relied on the curriculum to plan for their lessons, they utilize weekly plans to be able to achieve the set teaching targets.

"... when we are going to learn a certain story, I compare it with what they will learn in mathematics, social studies, English so basically we use a weekly plan and we use it with the curriculum that we have"- (GSA15t, RUY14t)

“I just prepare my own lessons depending on the age of the pupils and group them or make a play about a particular topic; I just make my own plan for a week and follow it”- (EPG01t, KAR02t, BYU03t, GAK07t, GSB09t, GSC10t, MUT12t)

Supervision while teaching Kinyarwanda: The majority of participating teachers indicated that they experienced minimal supervision while 6 teachers stated that they were not supervised and not monitored at all.

“The headmaster comes into the class during teaching, stands there for some minutes following what is taking place and then moves out”- (GSK08t).

“Once in a while the director comes to my class to see how the children are sitting and how they are studying. There are times when the parents also come and check”- (NTE13t).

Frequency of supervision observation by head Teachers or Deans of Studies (DOS): Besides the 6 teachers who reported that they never got the head teachers or Directors of Studies perform supervision observations; the other participating teachers from different schools gave different intervals on the observation of teaching Kinyarwanda lessons. Majority reported between once and three times a week with only one reporting four times a week.

“Once a week and this helps me to consult in case I get difficulties in teaching and am guided where there were mistakes as a teacher. It also helps me to keep strong and not lose morale. If he doesn’t come I will feel abandoned”- (RUB11t, GSB04t, MUT12t, GSK08t)

“Twice a week and this helps me to evaluate myself in my teachings and also I can’t fail to teach when I know the head teacher will be checking around the classes and this helps to motivate me”- (NTE13t, GSB09t).

“Three times since the term began and this helps me in a way that If I have done a mistake, the head teacher tells me then and I change in my ways, it also helps me to improve on my daily teaching routine”- (RUY14t, EPG01t)

“Four times a week and this helps me a lot because when the director comes and finds that there are things which are not going on well he advises me on how they should have been done and I improve”- (GSA15t)

Support desired by teachers to ensure they teach pre-primary reading in Kinyarwanda appropriately: Majority of the teachers mentioned that they desired to be supported through provision of training and teaching materials on teaching reading Kinyarwanda to be able to ensure that they teach pre-primary reading Kinyarwanda appropriately.

Some teachers desired that parents be sensitized on getting interested in their children’s education while a few others desired provision of infrastructures such as playing fields plus increment of teachers’ salaries.

“I would like to have enough training on teaching in Kinyarwanda and teacher’s guide would be helpful”- (BYU03t, MUT12t, GSB04t, MBA05t, RUL06T, GAK07t, GSC10t, RUBI1t, RUYI4t, GSA15t.)

“Parents need to be sensitized whereby after classes, parents are able to follow up what the pupils studied in class and also be able to help them with homework. Another issue is supporting teachers in terms of increasing their salaries”- (GSB09t)

“There is need for a good play ground where the children can play from and I make them sit, mats where the children can sit when we are telling stories because when children are studying from a disorganized place it are not good”- (NTE13t).

Assessment of pupils’ Kinyarwanda reading skills: Almost all teachers said that they test their students’ Kinyarwanda reading skills by asking them questions on what they will have taught them at the end of the lesson. As they read, the teachers assess the level that the child is at and if the pupil is not progressing well, they make him/her repeat the stories that were read.

“I use a book by opening one page at a time while showing the child as she reads to me. Then after that I cover the part that I have shown her. Then I ask her what she has seen from the covered page, if she fails I open the page again and I show her. After showing her I make her repeat it again”- (GSB04t)

“I give a child a book and bring her in front and tell her to read for me the story that we learnt”- (EPM25t)

“I always show them the manila papers or the flash cards we would have used while studying and ask them what they remember on certain pictures, the story behind the picture. When they respond, I get to know that they understood what we studied and if they fail, we repeat until they get everything and that’s when we can go on another topic”- (GSA15t, BYU03t, MBA05t, RUL06T, GAK07t, GSK08t, GSC10t, MUT12t, KAR02t, GSC10t, GSB04t, EPG01t, EPM25t, UBU24t, NTE13t, GSBI6t)

The assessments on the pupils’ Kinyarwanda reading skills were reported to have been on daily basis after each lesson. Almost all teachers reported that the assessments done on the pupils usually help them understand if the pupils learnt what was taught, where the pupils have challenge and those form a basis for helping the pupils who will be struggling and also be able to identify which topics should be emphasized or repeated.

“It helps me to know if the pupils have understood the lesson for example if they have learnt a certain vowel so that I can move on to the next vowel”- (NTE13t, EPG01t, KAR02t, NTE13t, RUYI4t, BYU03t, GSB04t, MBA05t, RUL06T, GAK07t, GSK08t, GSB09t, GSC10t, RUBI1t, MUT12t, GSA15t).

Anticipated challenges with implementing a programme that is aimed at empowering early grade pupils with ability to read in Kinyarwanda: The teachers highlighted common challenges as far as implementing a programme that is aimed at empowering early grade pupils with ability to read

in Kinyarwanda was concerned. They included; Lack of enough teaching/reading materials/aids like books, pictures, charts, toys, games, plays and also lack of enough space for the children to learn through games

“The challenge is studying from outside and this makes most of the pupils to be absent minded due to many obstacles outside or on the road. More to that, when it rains, we get disorganized trying to seek shelter for classrooms”- (GSB16t)

“Lack of enough seats to sit on while reading”- (GSK23t, (EPG01t, KAR02t, BYU03t, GSB04t, MBA05t, MUT12t, GSC17t, GSK18t, GSB09t, GSC10t, RUB11t, MUT12t, GSA15t, GSC17t, GSK18t, PSK20t, GSM22t, UBU24t).

The most important challenge anticipated by 12 teachers was the lack of the parents who are interested and involved in helping the children learn by for example providing some materials, helping with homework and speaking Kinyarwanda at home.

The other challenge that was noted was lack of enough teachers to assist in teaching children to read in Kinyarwanda and this was coupled with lack of enough training on teaching in Kinyarwanda.

Suggestions on mitigating challenges: The participating teachers mentioned that the government or donors should help provide enough teaching materials to schools so that both teachers and pupils can have enough to make reading in Kinyarwanda easier.

“If the government and leaders can respect nursery pupils and care for them more the same way they care for primary and secondary. For example, the way it buys books for primary should also be the same for pre-primary” - (GSC17t, GSM22t)

“The government and private investors should set up various pre-schools can reduce the number of pupils for easy management” - (BYU03t)

“If the reading materials are provided, we should also be trained on how to use them” - (UBU24t, (KAR02t, BYU03t, GSB04t, MBA05t, GSB09t, GSC10t, GSK08t, RUB11t, MUT12t, GSK18t, EPRI9t, GSK23t, UBU24t, EPG01t, GSB04t, MUT12t, RUL06t, GAK07t, GSK08t, GSC17t, GSM22t, RUYI4t, GSA15t, GSK18t).

Recommendations on helping children to be able to read in Kinyarwanda effectively:

Several teachers thought that provision of more reading and teaching aids like books, pictures, charts, toys, games so that the children have enough to be able to read Kinyarwanda effectively.

They also thought children should be given their personal text books which they can go with even at home. These they said, can be solicited from the government, private investors and the community.

They noted however; that the children going with text books at home would not be enough so they recommended that the parents should cooperate with the teachers and be more involved in making the children love and learn the Kinyarwanda language by encouraging the children to read books at home.

“Parents should get involved and teach the children to read Kinyarwanda from home through revision and home work instead of neglecting the work to only teachers”- (RUYI 4t).

They emphasized the need for clear materials that relate with the Rwandan culture because the materials available are general ones and for nursery children to learn in the local language that should go with the Rwandan culture.

“They shouldn’t lack anything when they are in school. A child should choose the book she wants to read not the teacher choosing for her. The place where they are supposed to study from should be nice. They shouldn’t lack anything when they are in school even when at home - (RUBI 1t, GSB09t, PSK20t).

“There is need for more story books and visible things while studying and if there is an audio provision where they can hear and repeat, it would also help”- (PRI 9t)

“Parents should get involved and teach the children to read Kinyarwanda from home through revision and home work instead of neglecting the work to only teachers”- (RUYI 4t)

The other recommendation to aid children to be able to read in Kinyarwanda effectively was encouraging teachers and parents to care for pre-primary children in addition to monitoring them more to be able to help them learn better:

“.....the children need to be cared for while at school and at home and see how to help the children learn to read in Kinyarwanda effectively”- (GSB09t)

Further, it was highlighted that the system needs to train and employ more teachers that are very good with pre-primary children and are very fluent in Kinyarwanda. They thought this could help reduce workloads from teachers from being overwhelmed and also increase the ratio of pupil to teacher interaction since the number of children is high.

“The children should be taught by teachers who are Banyarwanda and speak fluent Kinyarwanda” (GSB04t, GSK08t, GSK21t, GSB04t, BYU03t).

The participating teachers further suggested that the current schools should be expanded and approved by construction engineers. When the schools are expanded the children will get ample space and there will be a provision of more classes so that children have enough space for studying

“Children need a big class and we don’t have it. There is need for provision of more classes so that children have enough space for studying”- (GSA15t, GSM22t, (GSA15t, GSA15t, GSM22t, GSK18t, UBU24t, and GSCI7t).

“All Children should be brought to school. Also, nursery children should have a place of their own where there are no other people mixed there so that they are able to concentrate and read”- (GSK18t).

Specific activities recommended by teacher for improvement of early grade reading Kinyarwanda instruction/teaching:

The teachers indicated that there should be more visitation days where the parents check on their children's performance and well-being. Those in charge of the implementation of the program should also visit schools from time to time to see how the program is being implemented. This would facilitate monitoring and evaluating the process and improve early grade reading Kinyarwanda instruction/teaching.

Teachers also suggested that there should be Kinyarwanda reading competitions where those who perform well are given rewards. They thought this could make the children get more interested in reading Kinyarwanda.

Asked on how best the teachers would you like to be involved in a program aimed at helping pre-primary pupils to learn how to read in Kinyarwanda, the teachers had the following to say;

"My involvement is to make these kids love our local language and also make them realize that international languages are not of more value than our local language"- (RUL06T, GAK07t, RUB11t)

"I would also concentrate on the well-being of the kids because this helps them to study better. I would also help the children develop confidence for example, in case one answers wrongly, he should not be rebuked but instead help out with the right answers"- (MUT12t)

"By making for them the other materials like pictures and audios that help them to read the letters and vowels well, as a teacher I shouldn't forget to make that cloth and write the letters and the vowels so that every day when the children come they read. It will help them not to forget them"- (PRI9t, GSC10t)

"I can be involved by giving them the knowledge in the right way by making for them enough teaching materials that help them in reading. I draw for them the stories, I tell them stories and they repeat the stories that they understand so that they can know many Kinyarwanda words in their heads"- (GSA15t)

"I would like to be able to call for meetings in the villages, talk to the teachers around and also encourage other villages to meet and discuss on how to help the children"- (GSBI6t)

"I can put in more effort and also time for learning increases. I increase time for children to read so that the children like it. Also in the parents meetings I can show the parents why we should teach children to read and also a parent who wants to read a book I can give it to her so that she can go and teach the child and bring it back the following day"- (GSK18t)

"I would like to be involved through communicating and encouraging games among the children using Kinyarwanda"- (GSK23t)

"I would want to be involved everywhere like also teaching primary, secondary and also parents because I want our language to move forward and be recognized"- (UBU24t)

6.4.2 Head teacher Related Findings

Existing capacity within schools: Almost all the head teachers interviewed, confirmed not to have attained any training that prepared them to teach early grade reading or support teachers to teach pre-primary reading in the past year except 6 who claimed to have been trained along with their teachers by Save the Children on how to teach children. It was further indicated that Save the Children first assessed how the teachers were teaching nursery children from which they got a basis to train the teachers. This took place last year. One head teacher also indicated that they had not received any training but got a book called “Soma Umenye” (Read and Know) which is for P.1 from USAID.

That said there appeared to be limited training among pre-primary teachers across the schools interviewed. The situation was worse for play-based education training because almost all head teachers indicated that their teachers had not received any training to that regard. The 4 head teachers who indicated that their teachers had been trained in play based education to a limited extent - about twice since last year.

There was also a revelation that since pre-primary schooling emphasis is simply starting to pick up in Rwanda, very few teachers have so far been trained in pre-primary related teaching. Most of them are relying on the knowledge they obtained from either their university or college training – nothing specific.

On particular activities implemented in schools to promote pre-primary reading, use of different text books emerged out to be the most popular activity among most schools.

The other activities that came across as being implemented by schools to promote pre-primary reading were; reading competitions and recognizing the winners with certificates, storytelling, debate in Kinyarwanda, teaching the pre-primary children about proverbs in Kinyarwanda and talking to parents on how to assist their children in doing work. It did not come out from the head teachers that pre-reading skills (e.g. phonemic awareness, letter-sound identification, and listening comprehension) were necessary to develop before children read connected text.

On which particular programs the schools have had in the past year to promote/enhance early literacy and emergent reading among pre-primary children, the common finding was that there was nothing particular among all schools from which head teachers were interviewed.

The only programme that seemed to be top of mind for some few head teachers was “Soma Umenye” which was presented as one meant for higher classes starting from P.1 to P.3 where books are given out to children to read every Tuesday and Thursday by teams from USAID and REB. It was further reported that in some instances some parents go and sit with their children to teach them how to read Kinyarwanda. The said books from the programme were reported to be in Kinyarwanda and with pictures that can motivate the children to love Kinyarwanda language. The programme was started in 2017.

Supervision: The common lesson supervision/monitoring mechanisms that the head teachers have in their schools for the pre-primary teachers was physical visits to various classrooms and observing the teachers while they teach and whether or not they are following the curriculum.

Other mechanism reported was observation of how teachers interact and play with pre-primary children. Assessment/evaluation sheets were reported as a guide during the supervisory/monitoring activities by some few head teachers.

Another interesting mechanism that a few head teachers were using was evaluating how the children responded to questions from some of the lessons taught – indirect assessment of teachers.

The frequency of supervision on teachers' instructional practices in the pre-primary classrooms spanned from once a week to once a month. Only one head teacher reported to have been doing 3 physical observation visits a week.

Surprisingly, one head teacher claimed not to have enough time so he sometimes takes 2 months without supervising while another indicated that the Director of Studies is the one who does 75% of the supervision.

Determining how pre-primary pupils are learning to read in the local language: Majority of head teachers said that they determined whether or not pre-primary pupils had learnt how to read in the local language through physical supervision/monitoring observation procedures by precisely asking the pupils a few questions about what they have studied and they provide responses. This was always true after children had learnt to communicate effectively because majority of them go to school when they cannot talk well.

Frequency of head teachers sharing the learner's Kinyarwanda reading results with parents: There seemed to be limited sharing of learners' Kinyarwanda reading result across the participants. The few who did it indicated once or twice a term where they call parents to discuss with them the strengths and weaknesses of their children while some few others utilize the orthodox way of sending report cards of children at the end of each school term.

Surprisingly one head teacher confirmed that their school had not yet reached the level of sharing results but if for some reason a parent went to school, they shared with them everything about their children while in another school, sharing of learner's reading result particularly for the lower classes, the head teachers don't share any reading results with the parents at all.

Guidelines on how teachers should plan for lessons among pre-primary classes: Almost all the head teachers did not have specific guidelines on how their teachers should plan for lessons. Most relied heavily on the national curriculum while some few bought their own books that help in lesson planning.

6.5 Behaviors and attitudes that parents/caregivers have for effective support delivery of the programme

Fig. 41: Caregiver attitudes and beliefs

	Nursery					Primary				
	Strongly disagree	Disagree	Agree	Strongly agree	Don't Know	Strongly disagree	Disagree	Agree	Strongly agree	Don't Know
Overall										
Preprimary education is important	0.7	0.1	25.5	73.5	0.1	0.1	32.5		67.3	0.1
Preprimary children learning in local language is important	0.6	0.6	30.8	68.0	0.1	0.3	0.6	37.9	61.1	0.1
You take interest in the language child learns to read while at school	0.8	1.8	45.2	50.6	1.5	0.7	1.1	49.7	47.4	1
The school is helping your child how to read in the local language	0.8	1.8	46.9	47.4	3.0	0.8	1.1	54.5	40.1	3.5
You are helping your child to read in the local language	4.0	8.9	52.4	33.2	1.5	3.9	10.8	55.5	29.2	0.7
I have ever visited the school in which the child enrolled	4.7	13.2	42.2	39.4	0.5	5.3	19.9	47.8	26.8	0.2
In our community we believe sending children to preprimary is not important	61.0	27.6	4.7	5.8	0.8	55.6	34.6	4.2	4.9	0.7
Prefer to send child <8 to relative rather than pre-primary	68.9	28.2	1.3	1.3	0.3	59.5	37.8	1.7	0.7	0.3
Prefer to send child <8 to relative rather than to school to learn in local language	67.4	25.7	3.5	3	0.5	55.8	37.1	4.5	2.2	0.3
Parent should have not many expectation from child <8 who goes to school	57.7	28.6	7.9	3.2	2.7	49.5	38.1	7.7	3.4	1.2
Comparison										
Preprimary education is important	0.9	0.0	26.7	72.4	0.0	0	33.8		66.2	0
Preprimary children learning in local language is important	0.9	0.5	29.0	69.6	0.0	0	0.5	38.4	61.1	0
You take interest in the language child learns to read while at school	0.5	0.9	45.2	52.1	1.4	0.9	3.2	48.1	47.2	0.5
The school is helping your child how to read in the local language	0.5	0.9	46.1	50.7	1.8	0.5	1.4	50.5	43.1	4.6

You are helping your child to read in the local language	5.5	11.5	48.4	32.7	1.8	4.2	11.6	50.9	32.4	0.9
I have ever visited the school in which the child enrolled	7.4	17.1	36.9	38.7	0.0	5.1	17.1	50.5	27.3	0
In our community we believe sending children to preprimary is not important	68.2	27.2	2.8	1.4	0.5	57.9	35.2	2.8	3.7	0.5
Prefer to send child <8 to relative rather than pre-primary	74.7	22.6	1.8	0.5	0.5	58.8	39.8	1.4	0	0
Prefer to send child <8 to relative rather than to school to learn in local language	73.7	20.3	3.7	1.8	0.5	52.8	43.5	2.8	0.9	0
Parent should have not many expectation from child <8 who goes to school	65	21.2	8.8	1.4	3.7	48.6	41.2	6.5	3.7	0
Intervention										
Preprimary education is important	0.6	0.2	25.2	73.9	0.2	0.2	32		67.7	0.2
Preprimary children learning in local language is important	0.5	0.6	31.3	67.4	0.2	0.5	0.6	37.7	61.1	0.2
You take interest in the language child learns to read while at school	0.9	2.2	45.2	50.2	1.5	0.6	0.5	50.2	47.5	1.2
The school is helping your child how to read in the local language	0.9	2.2	47.2	46.3	3.4	0.9	1.1	55.8	39.1	3.2
You are helping your child to read in the local language	3.5	8.0	53.7	33.3	1.4	3.8	10.5	57	28.1	0.6
I have ever visited the school in which the child enrolled	3.9	11.9	44.0	39.7	0.6	5.4	20.8	46.9	26.6	0.3
In our community we believe sending children to preprimary is not important	58.6	27.8	5.4	7.3	0.9	54.9	34.4	4.7	5.3	0.8
Prefer to send child <8 to relative rather than pre-primary	67	30.1	1.1	1.5	0.3	59.7	37.1	1.8	0.9	0.5
Prefer to send child <8 to relative rather than to school to learn in local language	65.3	27.5	3.4	3.4	0.5	56.8	35	5.1	2.6	0.5
Parent should have not many expectation from child <8 who goes to school	55.2	31	7.6	3.9	2.3	49.8	37.1	8.1	3.3	1.7

Overall, pre-primary caregivers had a more positive attitude on pre-primary education being important, pre-primary children learning in local language being important, taking interest in the language their children learn to read while at school, the schools helping their children how to read in the local language, helping their children to read in the local language and visiting the schools in which their children are enrolled.

6.6 Skills, knowledge and attitudes that teachers have for effective support delivery of the programme

This section presents findings about the skills, knowledge and attitude that the teachers had.

6.6.1 Teacher Related Findings

Most teachers lacked specific instruction training which could enable improvement of pre-primary reading of Kinyarwanda. They also thought the same was true for the parents.

“We need training for teachers and sensitization of parents about their role in helping children to learn to read the Kinyarwanda language”- (GSB04t, MBA05t, RUYI 4t, GSK18t, EPM25t, GSA15t, RUL06T, GAK07t, RUBI 1t, PSK20t, GSK18t, and UBU24t)

In-service trainings on teaching Kinyarwanda attended: Most of the teachers also reported that they had never attended any in-service training on teaching Kinyarwanda in pre-primary. However a few of the participants reported to have attended in-service trainings on teaching Kinyarwanda in lower primary from different places as highlighted below;

“I attended four of them by “Help the Child” in Nyamata in February 2018. They taught us to know how old the children are and the way you can teach them using Kinyarwanda so that they can understand well”- (EPG01t)

“I attended one by “Let us Read” in 2017. They told us we are also supposed to teach a Kinyarwanda lesson and also young children learn how to read using pictures” - (RUBI 1t)

“A trainer from Save the children Organization came and trained teachers on better teaching methods in 2015 and this helped me learn more on how to teach nursery children using different methods for example through play based education and different educational games” - (RUYI 4t).

“I attended training in reading for nursery children in October 2017 by VSO. They trained us more about teaching Kinyarwanda using pictures and games for nursery pupils”- (GSA15t).

Attitudes of teachers towards pre-primary reading in Kinyarwanda: All the teachers reflected a positive attitude towards pre-primary reading in Kinyarwanda. They mentioned that it was a good system because learning to read Kinyarwanda helps the children to know their mother language and culture and it also helps them to be able to learn well in the upper classes and other languages and it helps promote the Kinyarwanda language. It was also thought that pre-primary reading in Kinyarwanda had the potential to promote togetherness in the Rwandese communities.

“Learning to read in Kinyarwanda in pre-primary will help the children learn their mother tongue because using international languages at the young age makes pupils not to understand their language very well in terms of reading and speaking it” - (KAR02t, BYU03t, RUL06T, GAK07t, GSK08t, GSC10t, (EPG01t, KAR02t, BYU03t, GSB04t, RUBI 1t, EPG01t, GSB04t, MBA05t, RUL06T, GAK07t, GSK08t, GSB09t, GSC10t, RUBI 1t, MUTI 2t, NTEI 3t, GSA15t, NTEI 3t, RUYI 4t, GSA15t, KAR02t, BYU03t, RUL06T, GAK07t, GSK08t, GSC10t).

Most of the teachers also hinted that the parents' attitude towards pre-primary reading in Kinyarwanda was good since they were also Banyarwanda and they were interested in their children learning in Kinyarwanda.

“The attitude is good. Parents become impressed when they see that a child can read Kinyarwanda very well”- (GSB04t, GSB09t, EPG01t, KAR02t, BYU03t, MBA05t, GSK08t, GSC10t, RUBI1t, NTE13t, RUYI4t, GAK07t, and MUT12t)

However some few teachers mentioned that the attitude of parents especially those that have never been trained was not good because they don't value Kinyarwanda language as much as they value English.

“They use English, French and other international languages even at home” - (RUL06T, GSA15t).

“The attitude would be good but some parents don't appreciate this system of teaching using pictures and games. The only way of reading they know is reading and writing letters. But those parents who have been trained appreciate the system” - (GSA15t).

Much as most teachers thought the parents had a positive attitude towards pre-primary reading in Kinyarwanda, they were not satisfied with the parents'/guardians' involvement in their children's learning how to read in Kinyarwanda.

Unlike for the parents, most teachers indicated that the community's attitude towards pre-primary reading in Kinyarwanda was negative.

“They are not involved much in reading - (RUL06T, EPG01t, GAK07t, GSC10t, RUBI1t, GSK18t, KAR02t, BYU03t, GSM22t)

“The community doesn't care much about pre-primary reading in Kinyarwanda” - (GAK07t, GSC10t, RUBI1t, GSK18t).

“The attitude is not good. I think due to the fact that they don't know”- (NTE13t, UBU24t)

“The attitude is not good because they don't help us in any way” - (GSK08t)

That said, 6 teachers expressed some positive thoughts towards the community's attitude. They indicated that the attitude was good.

“The community like it when the children communicate to them in a language they all understand” - (GSB04t, GSB16t, MBA05t, GSK08t, GSK23t, PSK20t).

“I think the community is happy about it because it wants the children of Rwanda to know their language”- (GSB16t).

7.0 CONCLUSIONS

On guiding research question number 1, “What are the variations in the pre-intervention indicators along the selected key impact and outcome indicators?”, findings revealed that;

- More female pre-primary children in both comparison and intervention groups demonstrated fair levels of reading readiness through identifying given colors.
- Listening comprehension was overall, done very well in both comparison and intervention groups. Most children were able to respond correctly to between 1 and 3 items in the task.
- There was good oral vocabulary development among pre-primary children as oral identification of common objects in Kinyarwanda was the best done task among pre-primary children.
- On common vocabulary words sub task 1, most (59%) of the pre-primary children overall were not able to point to any parts of the body correctly in both comparison and intervention groups.
- In the common vocabulary words sub-task 2 of placing objects, the item of placing in front of the chair was best done by the pre-primary children.
 - There were promising levels of reading readiness among pre-primary children given the presence of basic vocabulary that the reading materials required and they did not have much difficulty processing what they heard. There were some variations between the comparison and intervention areas for the various indicators in the study. In a few cases, some variations were noticed by gender of the children.
- For the Primary 1, on common vocabulary words sub task 1, most (59%) of the children overall were not able to point to any parts of the body correctly in both comparison and intervention groups and in the common vocabulary words sub-task 1b of placing objects, the item of placing in front of the chair was best (26%) done by the P.1 children followed by the item of placing on the floor (12%) across gender and across groups. This was manifest of the lack of vocabulary skills among the P.1 children.
- There were positive listening comprehension skills among P.1 children as overall, the listening comprehension subtask was well done by P.1 children - 63% across groups were able to correctly respond to 4 or more questions that followed the Kinyarwanda story.
- Almost all P.1 children across groups lacked alphabetic Knowledge.
- Phonemic awareness was low among the P.1 children regardless of the group.
- Almost all the P.1 children in both comparison and intervention groups were struggling readers since they failed the blending sub-task.
- The P.1 children universally lacked the early literacy skill of phonics/alphabetic principle as almost all of them both in comparison and intervention groups failed to read any of the made-up Kinyarwanda words.
- The P.1 children lacked word reading skills as almost all of them (98%) failed to read the familiar Kinyarwanda words.
- The P.1 children lacked early literacy skills of fluency as almost all of them 98.8% both in the comparison and intervention groups were not able to read any word in the short Kinyarwanda story that was given.

- There was general absence of the early literacy skill of reading comprehension among the P.I children as almost all of them were not able to answer correctly any of the five questions about a reading passage (read by student).
 - Almost all P.I children lacked early literacy and emergent reading skills in Kinyarwanda and there were negligible variations between the comparison and intervention areas for the various primary one children indicators.
- From the caregivers' point of view, slightly more nursery children than primary I children in both comparison and intervention groups had missed school for 5 days.
- Slightly more pre-primary children travelled over 7kms as compared to primary I children.
- Majority (84%) of the caregivers indicated that the local language was used at the schools where their children attended.
- Overall, 31% of caregivers across both comparison and intervention groups indicated that their children ever had homework to do and majority indicated that someone helped the children with the homework.
- Most teachers interviewed reported that the challenges pre-primary pupils face while learning how to read in school is that both boys and girls were not confident enough to participate in learning activities at school and take long to get used to the school environment.
- The majority of teachers indicated that boys and girls did not participate equally while they taught how to read in Kinyarwanda. It was noted that the boys were more active and more interested in reading than girls. The girls were however, reported to comprehend reading better especially with the help of pictures.
- Almost all teachers indicated that it was easy to teach reading in Kinyarwanda majorly because Kinyarwanda is the mother tongue of most pupils but highlighted it would be easiest if they had enough materials like text books and dealing with fewer pupils than they have currently.

On the evaluation question number 2, "What are the variations in aspects of behavior that are required to achieve the outcomes of the intended interventions?" findings revealed that;

- There was universal staying together of biological caregivers with their children across by comparison and intervention groups.
- There was variation of caregiver involvement by gender with pre-primary and primary one.
- In terms of engagement in activities that promote learning and school readiness in the last 3 days, only 1 in 5 had participated.
- There was limited provision of reading materials by caregivers.
- One in 4 caregivers read books with their children across groups.
- Less than half the caregivers gave their children assignments at home to enable them learn how to read.
- Almost all P.I children (93%) used Kinyarwanda while at home, in class and while playing. There were no major variations between the two groups.
- There was a proportion of the P.I children that was repeating class and another that did not attend school the previous year with a slight variation between and intervention groups.
- The predominant reading practice among P.I children be it in the comparison or intervention group was listening to teachers read and copying words in exercise books.

- Very few P.I children in both groups practiced reading at home and there were negligible variations between the two groups.

On the 3rd evaluation question, “What are the capacity levels of existing systems in schools for effective support delivery of the programme?” findings revealed that;

- Majority of teachers across both groups reported that they consulted their respective school administration which comprised of head teachers, deputies and directors of studies in case they needed help with their teaching yet they also had limited capacity in matters relating to teaching Kinyarwanda to children.
- There were large class sizes for the teachers to teach effectively for example in one school there were 79 pupils for 2 classrooms implying an average of 40 children per class to be managed by a single teacher. The pupil teacher ratio was high which effective support to children learning how to read.
- Limited reading materials such as story books were reported but there were some good available learner centered materials available to some teachers.
- The study discovered the presence of children with disabilities in the schools visited but all the teachers reported to lack training in dealing effectively with children with disabilities let alone training in teaching Kinyarwanda appropriately. The same was true for head teachers.
- There was limited comprehension of the competency based curriculum and play-based education among teachers and head teachers.
- There was almost general absence of gender-sensitive pre-primary specific reading materials in Kinyarwanda as a result there existed variations among female and male children participation in reading activities- the males seemed active and more interested in learning to read but the females comprehended better.
- There was a big gap among teachers and head teachers in understanding that pre-reading skills (e.g. phonemic awareness, letter-sound identification and listening comprehension) were necessary to develop before children can read connected text.
- There was limited supervision of pre-primary Kinyarwanda teachers as on average, most head teachers in the different schools visited, conducted between 1 and 2 observation visits per week per Kinyarwanda teacher.
- Almost all head teachers did not have specific guidelines on how their teachers should plan for lessons except the national curriculum while there was universal use of teachers' guides, scheme of work and the curriculum by teachers to plan for their lessons on development of reading among pre-primary classes with no variations between groups.
- There were no developed standard ways of teachers and head teachers assessing Kinyarwanda reading skills among pre-primary children across groups.
- There was lack of sufficient space especially for promoting learning through games across schools in both comparison and intervention groups.
 - There were unexploited capacity levels of existing systems in schools that could facilitate effective support delivery of the programme.
 - There was excusable fair quality of pre-reading instruction in targeted pre-primary schools given that most pre-primary teachers and head teachers had not been trained on pre-reading instruction and assessment.

On the 4th evaluation question, “What behaviors and attitudes do parents/caregivers have for effective support delivery of the programme?, the baseline findings revealed that;

- Caregivers don't have yet the culture of buying reading materials and assisting children on learning how to read outside school.
- Pre-primary caregivers had higher positive attitudes towards preprimary reading in Kinyarwanda based on the attributes asked of them where all of them either agreed or strongly agreed. There were minor variations between comparison and intervention groups.
- In relation to beliefs, many caregivers did not agree with the negative belief attributes that were posed to them.
- On the contrary, teachers reported that there were some caregivers who did not value teaching reading in Kinyarwanda as much as they valued teaching in English.
- Some caregivers were reported by teachers not to appreciate some of the teaching aids used such as pictures and games. They instead appreciated learning how to read by use of alphabetical letters.
- Teachers believed that some parents had a negative attitude in supporting their children to learn how to read.
 - There were low levels of caregiver/community involvement in supporting children's pre-primary literacy skills.

On the 5th evaluation question, “What skills, knowledge and attitudes do teachers have for effective support delivery of the programme?, the baseline revealed that;

- Most teachers had not been trained in teaching Kinyarwanda to pre-primary children and their supervisors did not know the need for supervision and how to supervise
- There was lack of in-service trainings on teaching Kinyarwanda to pre-primary children.
- Teachers had a positive attitude in teaching Kinyarwanda more so because it was their mother tongue and also because it helps them to promote the culture/togetherness.

Overall, the analysis for the Itegere_Gusoma baseline findings provides a very good bench mark on which subsequent measurements can be done. The fact that the study was carried out in 1st term before a lot of teaching was done, this can help test the children in the second term and end of the year.

8.0 RECOMMENDATIONS

The pre-intervention indicators along the selected key impact and outcome indicators

- To minimize the gap of oral vocabulary development among pre-primary children and of vocabulary skills among P.I children, teachers and caregivers should be empowered and encouraged by the programme to support intensely the children who had limited vocabulary knowledge.
- The programme should strive to ensure teachers and caregivers realize that reading readiness for children does not only involve basic reading skills but also includes other relevant factors that also contribute to reading skills such as motivation, caregiver's and teacher's deep involvement.
- To facilitate development of early literacy and emergent reading skills in Kinyarwanda among children, the programme should foster close collaborations between schools and caregivers/families such that both parties can support learning how to read at any available opportunity.
- To further facilitate emergent literacy, the programme should train teachers and head teachers on oral language, phonology, concept development, knowledge of the conventions of print, Kinyarwanda alphabet and the necessity of creating rich literacy environments in the classes and schools.
- Teachers and caregivers should be trained on individual differences in growth and learning among children so that they can support them appropriately.
- Teachers should be trained on giving more attention in combining strategies to put into practice in the classroom while teaching children.
- The programme should emphasize the regular use of reading tests to the teachers as they are trained so that children are assessed on their reading levels but also identify their weak points for support.
- The programme should empower teachers and caregivers to thoroughly focus on all the areas that the primary I children performed poorly among the pre-primary lot such that their skills are enhanced by the time they are in higher classes.

Aspects of behavior required to achieve the outcomes of the intended interventions

- In a workshop/training setting, the opportunity that exists of most biological parents staying with their children should be applauded by the programme.
- Both male and female caregivers should be encouraged to be involved equally in activities that promote learning and school readiness but also be enlightened on how to be involved because there have often been negligible efforts to engage caregivers because of the thought that they cannot yet they don't know how to be involved.
- Both male and female caregivers should be encouraged to provide reading materials to their pre-primary children and they should also be encouraged to give their children assignments at home to enable them learn how to read.
- The programme should sensitize communities about the importance of pre-primary education and reading Kinyarwanda at the same level so that the proportion of children who do not attend pre-primary but go straight to primary I reduces drastically.
- The programme should train teachers, head teachers and caregivers on the benefits of reading aloud to children and this should be encouraged. This reinforces individual attention, language,

reading readiness development and book handling skills.

- In relation to the above, the programme should think of procuring books that relate to the Rwandan children's own experiences and those that have good texture, color and tactile cues.
- The caregivers should be encouraged to establish reading routines at home such that children can begin to learn about objects and how to read. Active participation in a routine can reinforce concepts and reading skills among children.
- The programme should encourage schools to use strategies of communication with caregivers that convey what is important in a way that can be heard by caregivers and families and invites them to respond. This will especially be helpful when mobilizing for activities that involve reading of their children.

The capacity levels of existing systems in schools for effective support delivery of the programme

The programme should proactively advocate for either smaller class sizes or recruitment of more teachers so there is lower pupil-teacher ratio for effective teaching how to read.

- The programme should deliberately provide sufficient tailor-made and gender-sensitive reading materials such as Kinyarwanda pre-primary text books to promote equal female and male children participation in reading activities.
- The pre-primary teachers should be trained in dealing effectively with children with disabilities so they are not limited in learning how to read in Kinyarwanda.
- The programme should train pre-primary teachers and head teachers on competency based curriculum and play based education.
- The head teachers should be trained by the programme on supervising pre-primary Kinyarwanda teachers and standardized techniques of supervising.
- The pre-primary teachers and their head teachers should be trained by the programme on standardized ways of assessing Kinyarwanda reading skills among pre-primary children.
- The programme should train the school administrators on the importance of having sufficient space especially for promoting learning through games.

Behaviors and attitudes of parents/caregivers for effective support delivery of the programme

- The programme should train teachers on involving parents to enrich the learning environment in order to influence their children, particularly in reading.
- The programme should sensitize caregivers on the culture of supporting the provision of reading materials and assisting children on learning how to read outside school.
- The programme should consolidate the high positive attitudes towards preprimary reading in Kinyarwanda among the caregivers but also spread the word about pre-primary learning in all target communities such that some caregivers who did not value teaching in Kinyarwanda as much as they valued teaching in English can change their attitudes. The same opportunity can be used to dispel some of the existent negative beliefs.

The skills, knowledge and attitudes teachers have for effective support delivery of the programme

- The programme should utilize the proximity of TTCs to schools to get in – service training for all pre-primary teachers and head teachers in teaching Kinyarwanda to pre-primary children.
- Teachers and head teachers must be trained on the individual differences in growth and learning among children under their supervision.

- The school head teachers should be trained on the need for supervision and how to supervise their teachers while they teach Kinyarwanda.
- The programme should applaud and encourage the pre-primary teachers' positive attitude in teaching Kinyarwanda.

9.0 APPENDICES

Appendix A: Number of children interviewed per school by comparison and intervention, Nursery and Primary

School name	Nursery			Primary		
	Comparison school	Intervention school	Total	Comparison school	Intervention school	Total
BITI PS	11	0	11	11	0	11
Bizu	11	0	11	11	0	11
Byumba	0	18	18	0	17	17
Cs Nyamugeyo	11	0	11	11	0	11
Cyuna Primary School	12	0	12	11	0	11
E.P KAGASHI	11	0	11	11	0	11
EP NTENYI	11	0	11	11	0	11
Ep Cyete	0	17	17	0	17	17
Ep Mubumbwe	11	0	11	11	0	11
Ep Mutimasi	0	17	17	0	17	17
Ep Nyakanyinya	0	6	6	0	17	17
G S Kigogo	11	0	11	11	0	11
G.S Cyamukuza	11	1	12	11	0	11
G.S KABGAYI A	11	0	11	11	0	11
G.S NYANGE	11	0	11	11	0	11
G.S Rwikiniro	11	0	11	11	0	11
G.S.ZAZA	0	17	17	0	18	18
GS Bihinga	0	17	17	0	17	17
GS Byunba Cath	0	18	18	0	17	17
Gacaca	0	17	17	0	17	17
Gacuba 2b	0	17	17	0	17	17
Gacurabwenge Ps	0	17	17	0	17	17
Gakagati Ps	11	0	11	11	0	11
Gisanze Ps	11	0	11	11	0	11
Gisenyi	0	18	18	0	18	18
Gitwe	0	20	20	0	17	17
Gs Bigutu	11	1	12	11	0	11
Gs Kabaya	11	0	11	12	0	12
Gs Akanzu	0	17	17	0	17	17
Gs Coko	0	17	17	0	17	17
Gs Karengera Catholic	0	8	8	0	17	17
Gs Matimba	0	16	16	0	17	17

School name	Nursery			Primary		
	Comparison school	Intervention school	Total	Comparison school	Intervention school	Total
Gs Munini	0	17	17	0	17	17
Gs Murama	0	18	18	0	18	18
Gs Muramba	0	17	17	0	18	18
Gs Nyamata cath	0	17	17	0	17	17
Gs kagitumba	0	18	18	0	17	17
Kanyinya	0	20	20	0	17	17
Karambi	0	14	14	0	17	17
Karambo	11	0	11	11	0	11
Mataba	0	18	18	0	17	17
Mbare PS	0	17	17	0	17	17
Mbuga	0	11	11	0	17	17
Mirabyo Ps	0	17	17	0	17	17
Munazi	0	17	17	0	17	17
Nyanunda	0	21	21	0	17	17
Nyarubuye PS	0	17	17	0	17	17
RULI Catholic	0	17	17	0	18	18
Rubavu I	12	0	12	11	0	11
Rubengera I	0	17	17	0	17	17
Rubona	0	20	20	0	17	17
Rusambu	12	0	12	12	0	12
Rusenge School	11	1	12	11	0	11
Ruyange I	0	17	17	0	17	17
Rwimpiri	0	17	17	0	17	17
Tamba	0	16	16	0	17	17
Ubumwe	0	17	17	0	17	17
Umabano I	0	17	17	0	17	17
Winkingi	0	25	25	0	17	17
ZAZA B ps	0	17	17	0	16	16

Appendix B: Nursery children by gender and TTC, Sector and District

TTC/Nursery	Comparison	Intervention	Male	Female	Total
Bicumbi	11	17	12	16	28
Byumba	11	34	22	23	45
Cyahinda	23	34	28	28	57
Gacuba II	12	68	39	41	80
Kabarore	11	34	22	23	45
Kirambo	0	35	16	18	35
Matimba	11	34	23	22	45
Mbuga	33	36	34	33	69
Muhanga	0	34	18	17	34
Murumba	22	34	29	29	56
Mururu	11	39	31	31	50
Mwezi	23	70	45	46	93
Nyamata	0	74	35	34	74
Rubengera	22	68	45	45	90
Save	11	34	22	23	45
Zaza	22	34	28	28	56
Total	223	679	449	457	902

Sector/Nursery	Comparison	Intervention	Male	Female	Total
Byumba	11	34	22	23	45
Cyahinda	23	34	28	28	57
Cyeru	0	35	16	18	35
Gisenyi	12	68	39	41	80
Kabarore	22	34	27	29	56
Karengera	23	70	45	46	93
Matimba	11	34	23	22	45
Matyazo	22	34	29	29	56
Mururu	0	39	26	25	39
Nyamata	0	74	35	34	74
Nzige	11	17	12	16	28
Rubengera	22	68	45	45	90
Save	11	34	22	23	45
Shyogwe	22	34	29	28	56
Uwinkingi	11	36	23	22	47
Zaza	22	34	28	28	56
	223	679	449	457	902

District/Nursery	Comparison	Intervention	Male	Female	Total
Bugesera		74	35	34	74
Burera		35	16	18	35
Gatsibo	11	34	22	23	45
Gicumbi	11	34	22	23	45
Gisagara	11	34	22	23	45
Karongi	22	68	45	45	90
Muhanga	22	34	29	28	56
Ngoma	22	34	28	28	56
Ngororero	22	34	29	29	56
Nyagatare	11	34	23	22	45
Nyamagabe	11	36	23	22	47
Nyamasheke	23	70	45	46	93
Nyaruguru	23	34	28	28	57
Rubavu	12	68	39	41	80
Rusizi	11	39	31	31	50
Rwamagana	11	17	12	16	28
Total	223	679	449	457	902

Appendix C: Primary one children by gender and TTC, Sector and District

TTC/Primary	Comparison	Intervention	Male	Female	Total
Bicumbi	11	17	12	16	28
Byumba	11	34	22	23	45
Cyahinda	22	34	28	28	56
Gacuba II	11	69	39	41	80
Kabarore	11	34	22	23	45
Kirambo		34	16	18	34
Matimba	11	34	23	22	45
Mbuga	33	34	34	33	67
Muhanga		35	18	17	35
Murumba	23	35	29	29	58
Mururu	11	51	31	31	62
Mwezi	23	68	45	46	91
Nyamata		69	35	34	69
Rubengera	22	68	45	45	90
Save	11	34	22	23	45
Zaza	22	34	28	28	56
Total	222	684	449	457	906

Sector/Primary	Comparison	Intervention	Male	Female	Total
Byumba	11	34	22	23	45
Cyahinda	22	34	28	28	56
Cyeru		34	16	18	34
Gisenyi	11	69	39	41	80
Kabarore	22	34	27	29	56
Karengera	23	68	45	46	91
Matimba	11	34	23	22	45
Matyazo	23	35	29	29	58
Mururu		51	26	25	51
Nyamata		69	35	34	69
Nzige	11	17	12	16	28
Rubengera	22	68	45	45	90
Save	11	34	22	23	45
Shyogwe	22	35	29	28	57
Uwinkingi	11	34	23	22	45
Zaza	22	34	28	28	56
Total	222	684	449	457	906

District/Primary	Comparison	Intervention	Male	Female	Total
Bugesera		69	35	34	69
Burera		34	16	18	34
Gatsibo	11	34	22	23	45
Gicumbi	11	34	22	23	45
Gisagara	11	34	22	23	45
Karongi	22	68	45	45	90
Muhanga	22	35	29	28	57
Ngoma	22	34	28	28	56
Ngororero	23	35	29	29	58
Nyagatare	11	34	23	22	45
Nyamagabe	11	34	23	22	45
Nyamasheke	23	68	45	46	91
Nyaruguru	22	34	28	28	56
Rubavu	11	69	39	41	80
Rusizi	11	51	31	31	62
Rwamagana	11	17	12	16	28
Total	222	684	449	457	906

APPENDIX D: Geographical details of the programme schools where data was collected

TTC	SNo.	Sector	District	Schools
Byumba	2	Byumba	Gicumbi	GS Byumba Cath
Byumba	4	Byumba	Gicumbi	Gacurabwenge Ps
Cyahinda	7	Cyahinda	Nyaruguru	Gs Coko
Cyahinda	9	Cyahinda	Nyaruguru	Mirabyo Ps
Kirambo	12	Cyeru	Burera	Byumba
Kirambo	14	Cyeru	Burera	Ruyange I
Gacuba II	17	Gisenyi	Rubavu	Gacuba 2b
Gacuba II	19	Gisenyi	Rubavu	Ubumwe
Gacuba II	22	Gisenyi	Rubavu	Umabano I □ Umabano 3
Gacuba II	98	Gisenyi	Rubavu	Gisenyi □ Gacuba 2c
Kabarore	23	Kabarore	Gatsibo	Nyarubuye PS
Kabarore	26	Kabarore	Gatsibo	GS Bihinga
Mwezi	29	Karengera	Nyamasheke	Gs Karengera Catholic
Mwezi	31	Karengera	Nyamasheke	Kanyinya
Mwezi	34	Karengera	Nyamasheke	Nyanunda
Mwezi	36	Karengera	Nyamasheke	Rubona
Matimba	38	Matimba	Nyagatare	Gs kagitumba
Matimba	39	Matimba	Nyagatare	Gs Matimba □ PS Nkerenke
Murumba	45	Matyazo	Ngororero	Gs Murumba
Murumba	48	Matyazo	Ngororero	Gs Munini
Mururu	49	Mururu	Rusizi	Ep Cyete
Mururu	51	Mururu	Rusizi	Ep Mutimasi □ GS Mururu
Mururu	53	Mururu	Rusizi	Ep Nyakanyinya
Nyamata	56	Nyamata	Bugesera	Karambi
Nyamata	58	Nyamata	Bugesera	Gs Nyamata cath
Nyamata	61	Nyamata	Bugesera	Gitwe
Nyamata	63	Nyamata	Bugesera	Gs Murama
Bicumbi	66	Nzige	Rwamagana	Gs Akanzu
Rubengera	68	Rubengera	Karongi	Gacaca
Rubengera	71	Rubengera	Karongi	Mataba □ GS Nyagatovu
Rubengera	73	Rubengera	Karongi	Rubengera I
Rubengera	76	Rubengera	Karongi	Rwimpiri
Save	78	Save	Gisagara	Tamba □ GS Kinteko
Save	80	Save	Gisagara	Munazi

Muhanga	83	Shyogwe	Muhanga	Mbare PS
Muhanga	84	Shyogwe	Muhanga	RULI Catholic
Mbuga	88	Uwinkingi	Nyamagabe	Mbuga
Mbuga	92	Uwinkingi	Nyamagabe	Winkingi
Zaza	93	Zaza	Ngoma	ZAZA B ps
Zaza	95	Zaza	Ngoma	G.S.ZAZA

APPENDIX E: Geographical details of comparison schools where data collection was done

TTC	SNo.	SECTOR	SCHOOL NAME	DISTRICT
Byumba	2	Byumba	G S Kigogo	Gicumbi
Gacuba II	7	Gisenyi	Rubavu I	Rubavu
Rubengera	12	Rubengera	Bizu	Karongi
Rubengera	17	Rubengera	Karambo	Karongi
Mwezi	23	Karengera	Gs Bigutu	Nyamasheke
Mwezi	28	Karengera	Rusambu	Nyamasheke
Cyahinda	33	Cyahinda	Cyuna Primary School	Nyaruguru
Cyahinda	38	Cyahinda	Rusenge Primary School	Nyaruguru
Kabarore	43	Kabarore	G.S Rwikiniro □ Karubungu PS	Gatsibo
Mururu	48	Kabarore	EP NTENYI	RUSIZI
Matimba	54	Matimba	Gakagati Ps	Nyagatare
Mbuga	59	Uwinkingi	Gisanze Ps □ Gs uwinkomo	Nyamagabe
Murumba	64	Matyazo	Cs Nyamugeyo	Ngororero
Murumba	69	Matyazo	Gs Kabaya	Ngororero
Zaza	74	Zaza	G.S NYANGE	Ngoma
Zaza	79	Zaza	E.P KAGASHI	Ngoma
Save	84	Save	G.S Cyamukuza	Gisagara
Bicumbi	90	Nzige	Ep Mubumbwe	Rwamagana
Mbuga	95	Shyogwe □ Nyamabuye	G.S KABGAYI A □ Nyabisindu ps	MUHANGA
Mbuga	100	Shyogwe	BITI PS	MUHANGA

APPENDIX F: Table of Baseline Indicators

Indicators	Baseline Values Pre-primary	Baseline Values Primary I	Definition of Indicators
<p>Quality of pre-reading instruction in targeted pre-primary schools</p> <p>Availability and use of evidence-based, gender-sensitive pre-primary reading materials</p> <p>Level of teachers' implementation of evidence-based, gender sensitive instructional & assessment practices</p> <p>Level of supervision of pre-primary reading instruction</p>	<p>7/32</p> <p>7/32</p> <p>26/32</p>		<p>Absolute number of schools that reported to have and use evidence-based, gender-sensitive pre-primary reading materials</p> <p>Absolute number of teachers who implemented evidence-based, gender sensitive instructional & assessment practices</p> <p>Absolute number of pre-primary teachers supervised while teaching</p>
<p>Community and parental involvement in supporting children's pre-primary literacy skills</p> <p>Level of caregiver attitudes on pre-primary reading in local language</p>	<p>O=99.2%</p> <p>C=98.6%</p> <p>I=99.4%</p>	<p>O=99.6%</p> <p>C=100%</p> <p>I=99.4%</p>	<p>This is the average of 7 attitude questions/attributes</p>
<p>Level of caregiver beliefs on pre-primary reading in the local language</p>	<p>O=12.5%</p> <p>C=8.3%</p> <p>I=13.9%</p>	<p>O=11.0%</p> <p>C=9.7%</p> <p>I=11.4%</p>	<p>This is the average of 4 belief questions/attributes- these are caregivers with wrong beliefs towards pre-primary</p>
<p>Level of parent/caregiver (family) engagement of early reading outside of the classroom</p>	<p>O=8.9%</p> <p>C=9.7</p> <p>I=8.6</p>	<p>O=7.6%</p> <p>C=6.0%</p> <p>I=8.1%</p>	<p>This is a an amalgamation of parents/caregivers who engage in all the 3 related activities i.e. question 410 414 418</p>
<p>Level of parent/caregiver (family) provision of scholastic materials</p>	<p>O=3.2%</p> <p>C=2.3</p> <p>I=3.6</p>	<p>O=3.4</p> <p>C=4.2</p> <p>I=3.4</p>	<p>This is a an amalgamation of parents/caregivers who provided scholastic materials in both related activities i.e. question 411 & 413</p>
<p>Pre-reading skills among pre-primary students</p> <p>% of common vocabulary words Ia</p>	<p>O=1.3</p> <p>C=1.8</p> <p>I=1.2</p>		<p>Pre-primary children who passed 4+ related items</p>

% of common vocabulary words 1b	4.8% C=2.7 I=5.5		Pre-primary children who passed 4+ related items
% of letter sound knowledge	Only one child attempted the sub-task		Because of only 1 child, we did not compute.
% of color recognition	O=3.3 C=3.6 I=3.2		Pre-primary children who identified all the colors
% of listening comprehension	O=25.6 C=27.4 I=25.0		Pre-primary children who responded correctly to all the items of the sub-task
% of oral identification of common objects in Kinyarwanda	O=46.1 C=47.8 I=45.5		Pre-primary children who able to identify all the objects correctly
Current literacy outcomes among children in primary grade 1.		O=2.0% C=3.2% I=1.6%	Primary 1 children who identified correctly 21+ letter sounds
% of letter sound knowledge			
% of listening comprehension		O=60.3 C=59.4 I=63.3	Primary 1 children who correctly responded to 4+ questions that followed the Kinyarwanda story
% of blending		O=1% C=2.3% I=0.6%	Primary 1 children who identified correctly 21+ vowel sounds
% of common vocabulary words 1a		O=1.3 C=1.8 I=1.2	Primary 1 children who passed 4+ related items
% of common vocabulary words 1b		O=0.4 C=0.0 I=0.6	Primary 1 children who passed 4+ related items

%Segmenting		O=30.6 C=27.5 I=31.6	Primary 1 children who correctly identified 4+ items
% of Non-word decoding		O=0.1% C=0.5% I=0.0	Primary 1 children who read correctly 21+ made-up Kinyarwanda words in 60 seconds
% of familiar words		O=0.1 C=0.5 I=0.0	Primary 1 children who read correctly 21+ familiar Kinyarwanda words per minute
% of oral passage reading		O=0.1% C=0.5% I=0.0	Primary 1 children who read fluently 21+ words of the short Kinyarwanda story.
% of reading comprehension		O=0.2 C=0.9 I=0.0	Primary 1 children who responded correctly to 3 out of 5 questions asked after the story was read



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