

January, 2016

USAID/Uganda School Health and Reading Program: Early Grade Reading Assessment Results: Cluster 1 Follow-Up 3: Ateso, Leblango, Luganda, Runyankore-Rukiga

Has reading achievement increased as a result of the USAID/Uganda School Health and Reading Program interventions? Early Grade Reading Assessment data collected for 4 Cluster 1 languages (Ateso, Leblango, Luganda and Runyankore-Rukiga) and English at the beginning of Primary 1 compared to end of Primary 3 show increases in fundamental reading skills, higher than increases found in control schools.

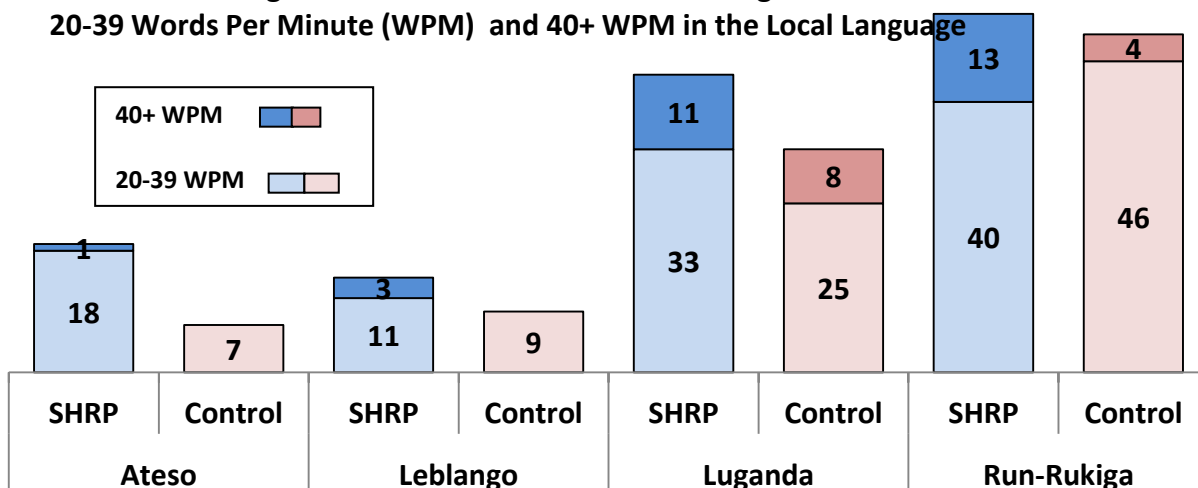
By the end of P3, learners in Program Schools are reading more words than learners in control schools and are closer to becoming fluent readers in both Local Language and English

The Early Grade Reading Assessment data presented here are from a randomized control trial which included 4,541 learners in program schools and 1,468 learners in control schools at the beginning of P1 in February, 2013 compared to 1,320 learners in program schools and 1,431 learners in control schools at the end of P3 in October, 2015¹.

Local Language Oral Reading Fluency: Differences in Oral Reading Fluency (ORF or words per minute) between program and control learners are notable and have increased more in program schools than control schools as shown in the Figure 1 and Figure 2².

Figure 1 shows the percent of learners who could read 20-39 words per minute (wpm) and 40 or more wpm at the end of P3. At baseline, all language groups (treatment and control) started from zero.

Figure 1: Percent of P3 learners reading 20-39 Words Per Minute (WPM) and 40+ WPM in the Local Language



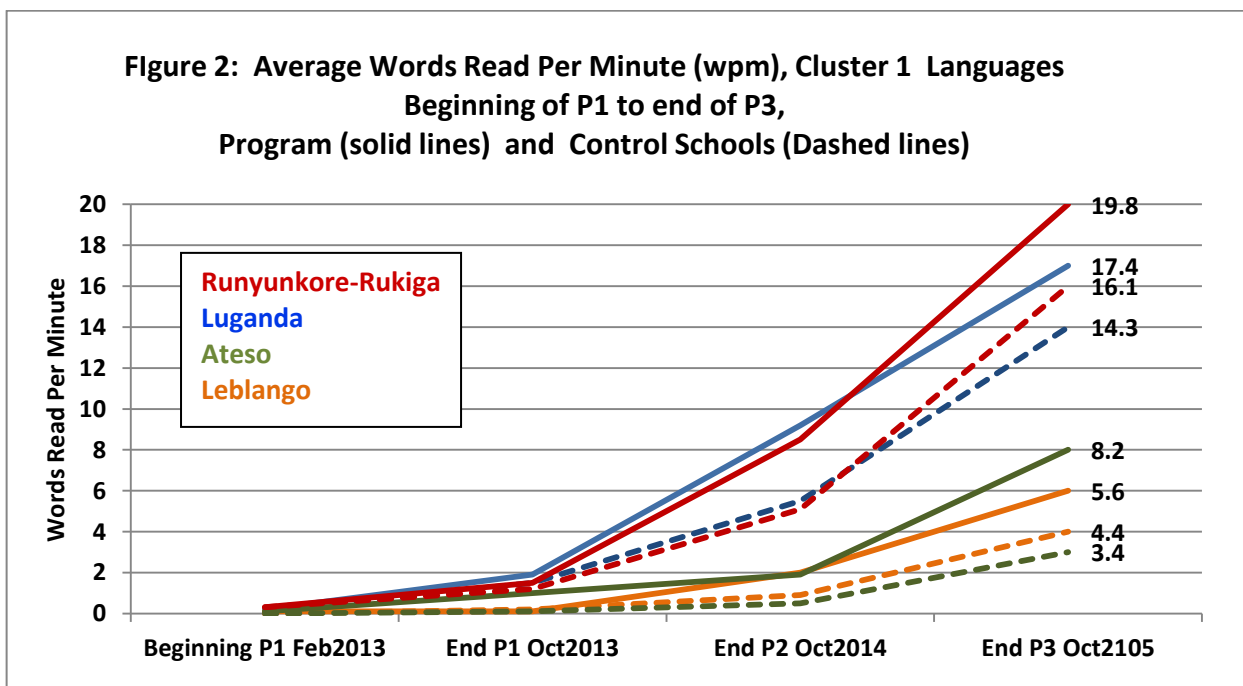
In Ateso, the percent of learners reading 20 or more words a minute increased to 19% (18% reading 20-39 wpm and 1% reading more than 40 wpm) in program schools and to 7% in control schools. In Leblango, 14% of program learners could read 20+ words per minute (3% read more than 40 wpm), compared to 10%

¹ Districts include: Wakiso, Gomba, Kiruhura, Bushenyi, Kabale, Kumi, Katakwi, Serere, Apac, Lira, Kole.

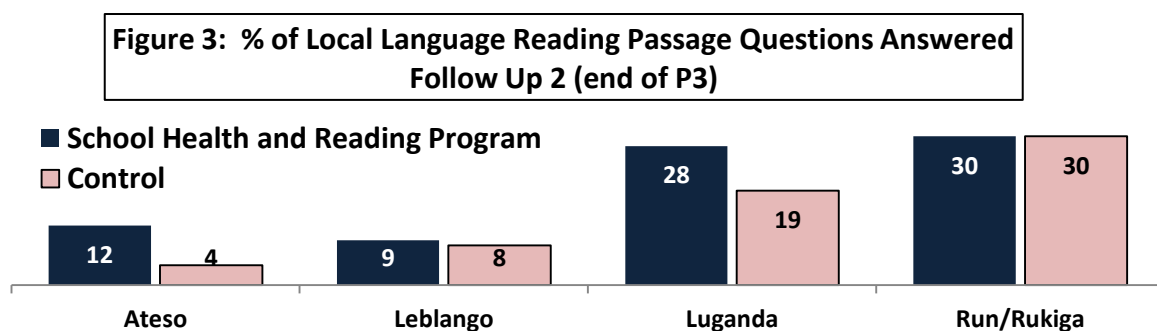
² Differences in Ateso are statistically significant with medium effect sizes (0.53 for 20-39 wpm). In Runyankore-Rukiga the difference in 40 and over is statistically significant (effect size 0.34). The only significant gender differences were for Luganda 40+ wpm where program girls were higher than boys and for Ateso, 20-39 wpm where control boys were higher than girls.

for control learners. In Luganda, 44% of program learners could read more than 20 wpm compared to 33% in control schools. For Runyankore-Rukiga, the percent of learners reading 20 or more words per minute increased to 53% compared to 50% in control schools but the percent of program learners reading over 40 wpm was 13% in program compared to only 4% in control. **In every language, programs learners are shifting to higher levels of reading at higher rates than control learners.**

Figure 2 shows learners reading progression from the beginning of P1 (baseline in February, 2013) to the end of P3 (Follow-Up 3 October, 2015). Average Oral Reading Fluency in Local Language (words read per minute or wpm) shows continual progress over the past year³. The solid lines in the chart below show program schools, the dashed line of the same color shows control schools. Program schools continue to outperform control schools in all 4 languages (Luganda 17.4 vs 14.3; Runyankore Rukiga 19.8 vs. 16.1; Leblango 5.6 vs. 4.4 and Ateso⁴ 8.2 vs. 3.4). P3 saw a lot of growth for all learners, especially in Luganda and Runyankore-Rukiga -- though the differences are not as great as hoped for. After years of stagnating at very low levels not much higher than control, P3 was a “break out” year for Ateso where program learners are reading over twice as many words on average compared to control learners. The difference between Leblango Program and control was very small (5.6 program compared to 4.4 control).



Local Language Reading Comprehension: Learners need to read with fluency but they also need to be able to understand what they are reading. **Figure 3** shows the percent of the local language reading passage questions that learners were able to answer correctly at end of P3.

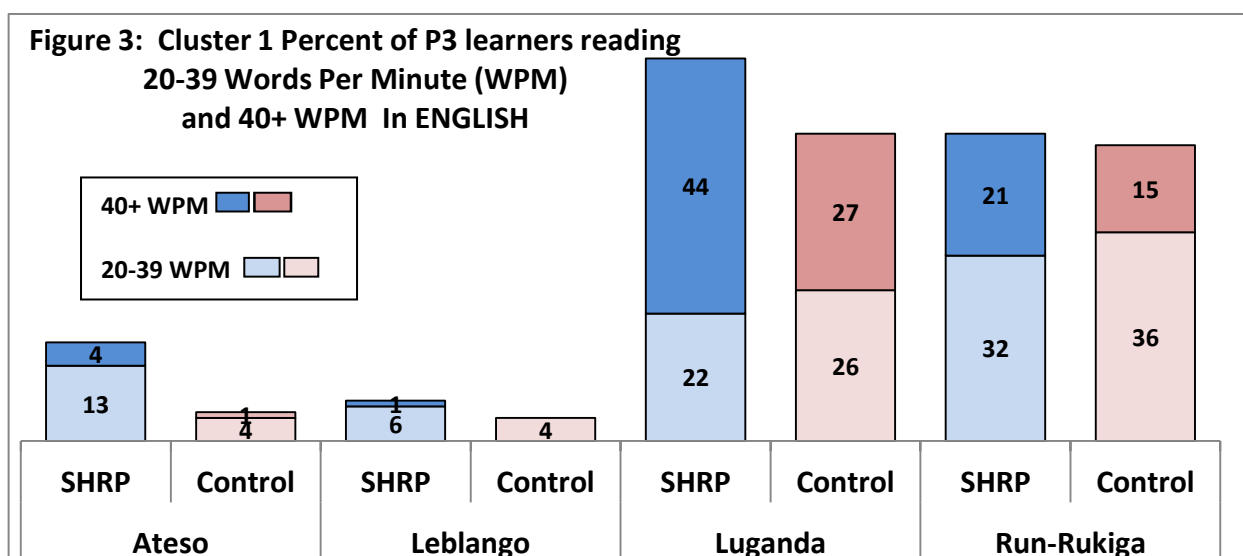


³ Gender differences were found in control schools only in local language ORF and English ORF with girls higher than boys in Luganda and Runyankore-Rukiga and boys higher than girls in Ateso.

⁴ Ateso was the only difference that was statistically significant with a large effect size (.78), medium effect sizes were found in Luganda (.33) and for Runyankore-Rukiga (.42).

At the end of P3, the percent of comprehension questions answered correctly increased to between 12 and 30% in program schools – in Ateso⁵ and Luganda program learners could answer more questions than control learners (12% in Ateso compared to 4% in control schools, Luganda program learners answered 28% compared to control 19%). In Leblango and Runyankore-Rukiga findings were similar in program and control with 9% for Leblango program and 8% for control. For Runyankore-Rukiga both groups answered 30% of the questions correctly.

English Oral Reading Fluency and Comprehension: The program follows the MoES thematic curriculum and teaches reading predominantly in the local language In P1-P3, with more and more time devoted to teaching in English as the learner progresses to higher grades – in P4, the teaching is almost all in English. That and the knowledge that learning how to read in the local language has been found to make learning to read in a second language easier, by P3 we would expect to see improvements in English reading associated with the program. Similar to local language, learners in program schools are reading more words and progressing into higher wpm reading levels – in all 4 languages, program learners were more likely to read 20-39 wpm and 40+ wpm.



While all groups started at zero at baseline, almost 66% (44% 20-39 and 22% 40 or more) of learners in Luganda speaking program schools could read 20+ WPM in English compared to only 53% in control schools. In Runyankore-Rukiga, though 53% of learners could read more than 20 wpm is not much different than 51% for control learners – 21% of program learners could read 40 or more words per minute compared to only 15% for control learners. In Ateso, 17% of program learners could read 20 or more words per minute compared to 5% of control learners. Leblango program learners seem to have only a slight advantage over control learners – 7% reading 20 or more words per minute compared to 4%.

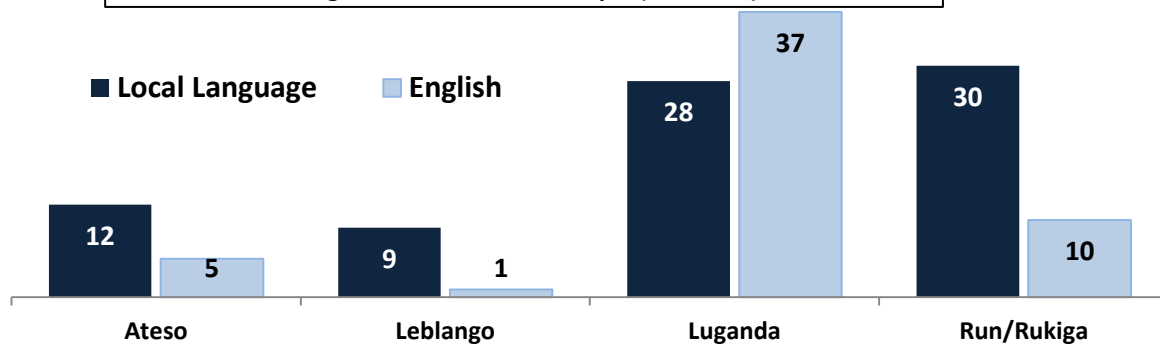
In Luganda speaking program schools, learners are reading more words per minute in English than in local language (66% are reading 20 or more wpm in English, 44% are reading 20 or more wpm in Luganda). In Runyankore-Rukiga speaking program schools, 53% of learners are reading 20 or more wpm in both English and Runyankore-Rukiga. In Ateso, the percentages reading English and local language are similar: 19% of learners are reading 20 or more wpm in Ateso and 17% are reading 20 or more wpm in English. In Leblango a higher percentage of program learners were reading 20 or more wpm in Leblango compared to English: 14% compared to only 7% in English.

⁵ Ateso was only language group showing significant differences above control with a large effect size (.74), Luganda showed a medium effect size (.54). Gender differences were found in control schools only with girls higher than boys in Luganda and Runyankore-Rukiga and Luganda and boys higher than girls in Ateso.

In prior years, it was always the case that learners could answer more questions (comprehend what they are reading) in local language than English – even when they were able to read more words in English. **Figure 4** shows that this is still the case in all of the languages with the exception of Luganda – where, on average, learners understood more of what they read in English⁶. In Ateso, program learners answered 12% of Local Language questions compared to only 5% of the English, Leblango it was 9% compared to 1% in English and in Runyankore-Rukiga learners answered 30% of local language questions compared to 10% of English questions.

Learners in Ateso, Leblango, and Runyankore-Rukiga speaking program schools understand more of what they read in local language than in English

**Figure 4: % of Reading Passage Questions Answered Correctly
Local Language and English
Program Schools -- Follow Up 2 (end of P3)**



Understanding more in Local Language than English even when the number of words read is the same (as is the case in Ateso and Runyankore-Rukiga) lends support to learning in local language but this may be language specific especially as learners progress to P3 (in the case of Luganda speaking schools which have higher levels of access to English by way of teachers, print and media) and P4.



⁶ It must be noted that there is a strong correlation between words read per minute and comprehension both theoretically and practically – learners are only asked questions from sections of the story that they actually read.