

LITERACY BOOST: RCT MIDLINE READING ASSESSMENT (FEBRUARY 2015)

ABOUT LITERACY BOOST (LB)

Literacy Boost is Save the Children's innovative, evidence based program to support the development of reading skills in young children. The LB program is made up of three components:

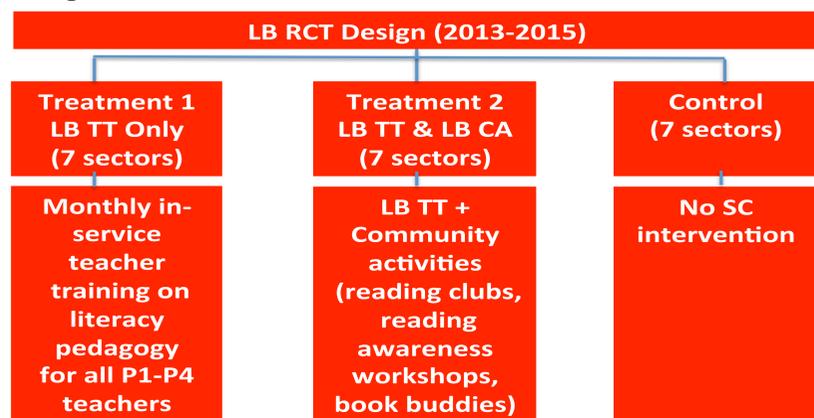
- Teacher Training (TT)
- Community Action (CA)
- Assessment

EVALUATION DESIGN

Led by Stanford University in partnership with REB, Save the Children's LB Randomised Control Trial (RCT) is looking at the effects on children's early reading development of:

- LB teacher training alone, and
- The combination of LB TT with home and community support for children's reading development (LB CA).

In 2013, all 21 sectors in Gicumbi District were randomly assigned as follows:



Students' reading skills in each group were assessed at baseline (Sept 2013), midline (Feb 2015) and endline (Sept 2015).

SAMPLE

2,118 students from 85 schools were sampled at baseline in September 2013 the same schools were visited again at midline in February 2015. Only 1,712 students could be assessed at midline as many students who had participated in baseline could not be located.

FACTORS AFFECTING MIDLINE ANALYSIS

- Implementation timing required the research team to create a new 'treatment' group: students who live in an LB sector, but did NOT experience the village-based LB activities by midline.
- In order to estimate impact of LB, it was important to know the exact village, cell, and sector where a student lived. Students for whom this information was not available were dropped from the analysis.
- The reduction in sample size, and the division of the original LB groups into two separate groups reduced the ability to detect statistically significant effects at midline
- In both LB and TT groups, the teachers had only recently completed the full training and hadn't had time to fully apply their new skills by midline. Many parents and children in the full LB treatment group had only experienced the intervention for a few months. It is highly likely that low treatment exposure impacted midline results.



KEY FINDINGS FROM THE LB MIDLINE

- Students who received LB services performed significantly better on the P2/P3 fluency assessment than students in the control group. They also performed better on nearly every other skill assessed. This finding highlights the importance of out-of-school support for reading.
- When analysing the effect of participation in different LB-encouraged activities (reading buddies, book borrowing, reading club participation) it appears that having a reading buddy is the activity most highly associated with achievement outcomes. As students weren't randomly assigned certain components of the program, this analysis is based on student reporting of participation in certain parts of the program as associated with differential achievement.
- Students who received the full LB treatment have significantly better home literacy environments. Students assigned to the LB group but not yet having received the full treatment also registered better home literacy environments, though not significantly so. This finding reiterates the importance of awareness raising with parents to support improvements in creating an environment in the home that is conducive to literacy skills development.
- The poor readers in the study sample at baseline were more likely to be absent or gone at midline. More research would be required to attribute causality, but this finding indicates that poor reading skills could be a factor of student drop out or increased absenteeism that could lead to repetition or drop out later on.
- Generally, while the LB groups and TT-only group had improved reading skills over their peers in the control group (particularly in reading fluency), gains at midline remained low. The absence of large differences between groups could simply be a function of time: students had not been exposed to enough activities over a sufficient length of time to improve their reading skills. The endline assessment conducted in September, 2015 will be better positioned to determine the full extent of LB impact.

LB MIDLINE READING ASSESSMENT INSTRUMENTS & METHODS

An early grade reading assessment was administered to all students. The assessment tested recognition of letters and letter sounds, the ability to spell and decode basic words, vocabulary, listening and reading comprehension, and fluency and accuracy in Kinyarwanda. English decoding and vocabulary was also tested. P1 students who had been randomly selected for assessment at baseline in 2013 were found and tested again at midline (now in P3).

Figure 1. Midline Reading Assessment Scores by Exposure to Treatment

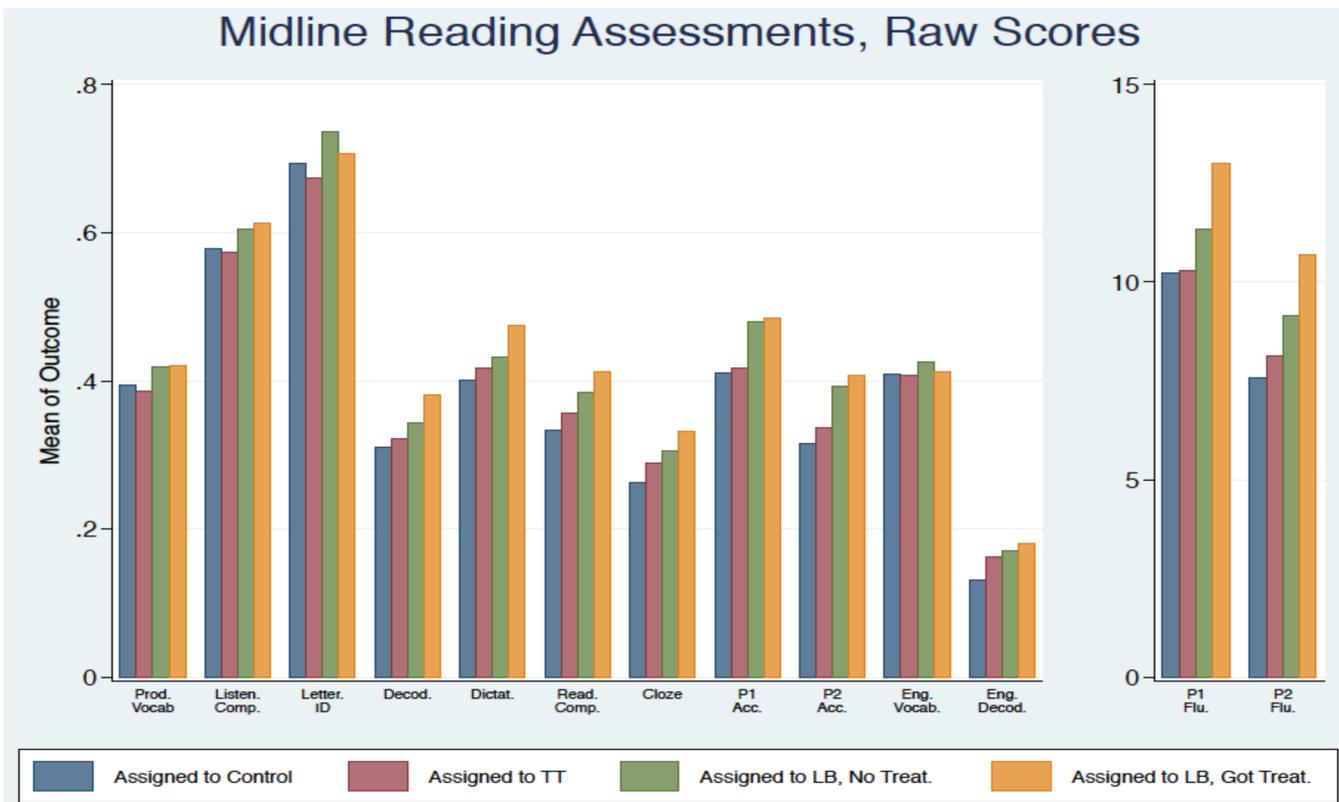


Figure 1. In this figure we see some indication of treatment effects on some of the outcomes. Students who participated in LB activities performed significantly better on the P2/P3 fluency assessment than students in the control group. They also performed better (though not significantly better) on nearly every other skill assessed, as indicated by the positive coefficients associated with every skill and in the yellow bars.

Figure 2. Mean Home Literacy Environment Indices (in units of standard deviation)

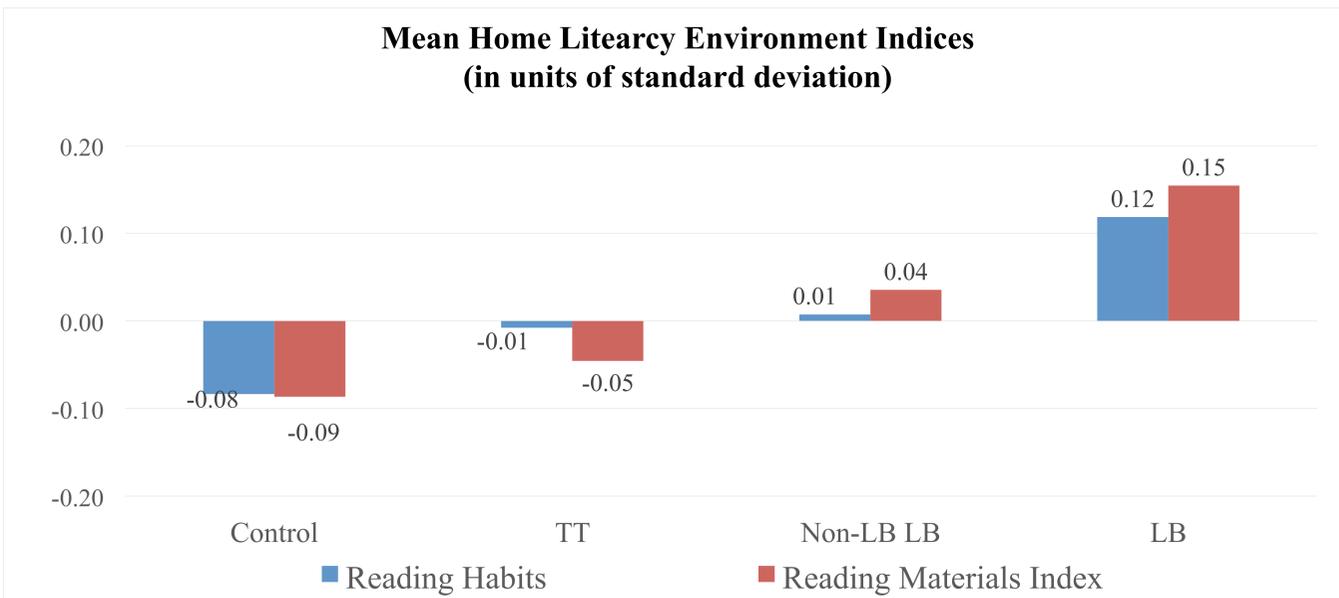


Figure 2 compares the predicted home literacy environment of students from the control group, TT group, the LB group who did not get the LB treatment and the LB group who got the LB treatment. The measures represent students' home literacy environments relative to other students, with higher scores representing richer home literacy environments.

Figure 3. Mean Take-up of Program Activities (in units of standard deviation)

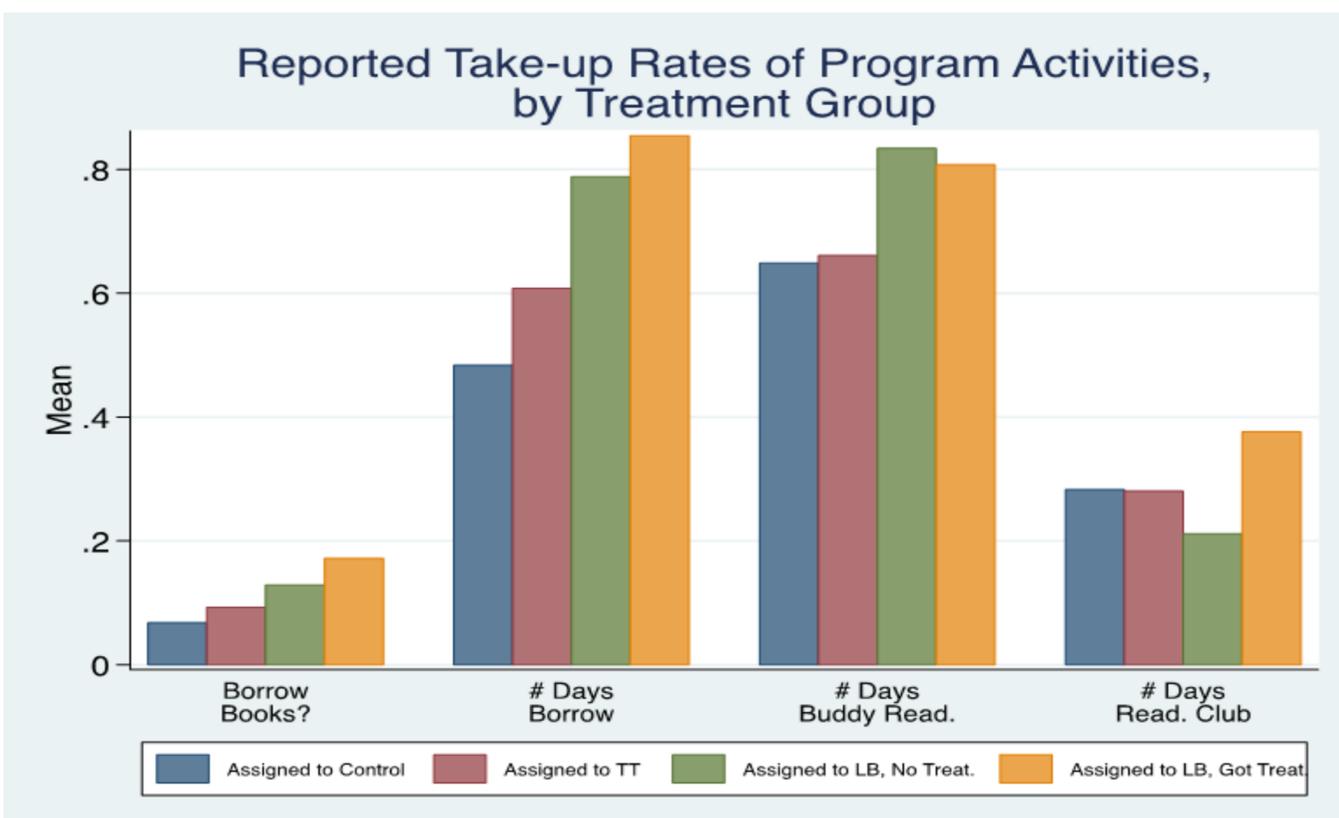


Figure 3 shows the extent to which children in each group reported engaging in four group activities: Borrowing books, number of days books were borrowed, number of days they read with a buddy, and number of days in the reading club. On three of the four measures, children in the LB group who received the full program treatment were the highest in take-up rates; on the fourth measure they were second highest. This makes sense, as all children assigned to LB received the Reading Buddy intervention, which was a community activity that was organized at the school level.