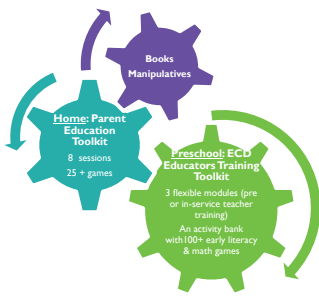


## EARLY LITERACY AND MATH INITIATIVE (ELMI) MIDLINE ASSESSMENT, September 2014

### ABOUT ELMI

Early Literacy and Math Initiative (ELMI) is an innovative project implemented by Save the Children in partnership with VSO through the financial support of the DFID-Innovation for Education fund (IfE). ELMI aims to improve children's school readiness skills for children aged 3 to 6 years through centre-based and home-based interventions.



### ELMI EVALUATION TIMELINE:

A baseline was conducted in May 2013. The midline assessment was carried out in September 2014. The endline will take place in May 2015 to measure achievements in P1 students' performance in literacy and maths.

### THE SAMPLING:

The assessment was carried out across 2 treatment groups (ELMI Centre and ELMI Parenting) and 2 control groups (ECCD control and Non-ECCD control). Overall 617 children were assessed at both baseline and midline (out of an original sample of 833 children at baseline, some of whom couldn't be located at midline).

### LOCATION:

**Burera District:** Gitovu Sector (5 ELMI Centres); Cyeru Sector (23 Parenting groups); Rwerere Sector (Non-ECCD Control); Rugengabari Sector (4 ECCD Control Centres).

**Rubavu District:** Rubavu Sector (5 ELMI Centres); Rugerero Sector (28 Parenting groups); Nyamyumba Sector (Non-ECCD Control).

**Ruhango District:** Mwendo Sector (5 ELMI centres); Byimana Sector (38 Parenting groups); Ruhango Sector (Non-ECCD control).

**Gicumbi District:** Rubaya Sector (5 ELMI centres); Cyumba Sector (Non-ECCD control).



### KEY FINDINGS FROM THE MIDLINE

We found that:

- While both groups of students are growing in their skills in different areas, we find that the ELMI Centre group maintains their developmental advantage seen at baseline. However, we find that children in ELMI Parenting and ECCD Control centers make comparable learning gains from baseline to midline.

- The amount of play activities at home at midline has the most consistent relationship with skill growth across groups.

- Strong correlations were found between the language and mathematics environments in classrooms and gains in children's literacy and mathematics scores.

This tells us that:

- A high quality parenting education programme can serve as an effective alternative to more costly centre-based approaches to ECCD.

- Home environments and family engagement is a powerful driver of child achievement.

- It is essential to take into consideration the quality of ECD services, and not just access, to achieve the desired outcomes of school readiness.



### INSTRUMENTS

The School Readiness Assessment (SRA) tool used includes items related to five developmental domains of preschool children: Language and Emergent Literacy, Emergent Math, Physical Development (fine and gross motor skills), Socio-Emotional Development, and Personal Health & Hygiene. The baseline analysis established the strong internal consistency of this tool, and an updated analysis using midline data confirms this finding. In order to understand the children's learning environment in ECCD centres, Early Childhood Environment Rating Scale (ECERS) checklists were used.

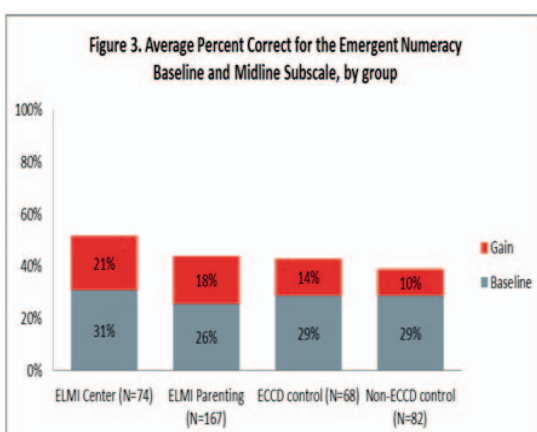


Figure 3 displays baseline and gain in emergent numeracy for children present for the baseline and midline assessments in each group. There were no significant differences between gains made by boys and girls. Children in the non-ECCD control group gained the least over the course of the program period (10%) and the ELMI ECCD center group gained the most (21%). Interestingly, we see the ELMI Parenting group exceeding in gains over the regular ECCD control group (18%) and almost catching up with the ELMI Center group

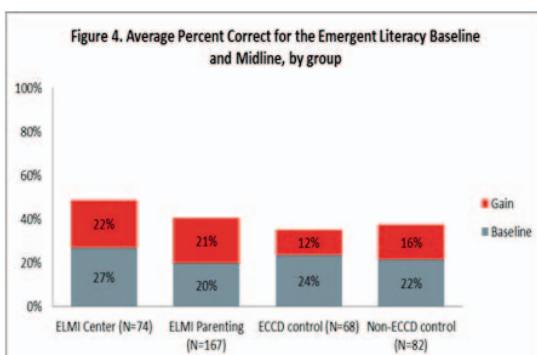
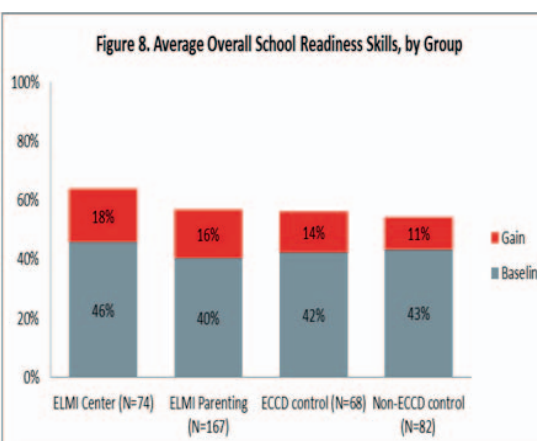


Figure 4 displays baseline and gain in emergent literacy for children present for the baseline and midline assessments in each group. There were no significant differences between gains made by boys and girls. This figure displays strong and similar Emergent Literacy skill growth for both ELMI Centre and ELMI Parenting groups (22% vs 21%), while ECCD Control and Non-ECCD Control children make weaker gains.



As Figure 8 displays, children in all groups made many gains in overall school readiness scores. ELMI Centre children began at baseline and remain at midline with a developmental advantage over children in all other groups. However, it is interesting to note that children in the ELMI Parenting group and children in the ECCD control group have similar skills at midline (16% and 14%), suggesting that a high quality parenting intervention can have similar results to a standard center-based ECCD program.

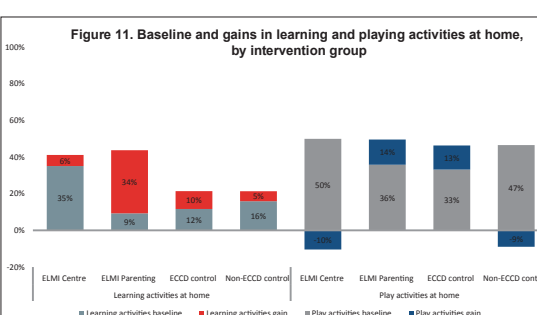
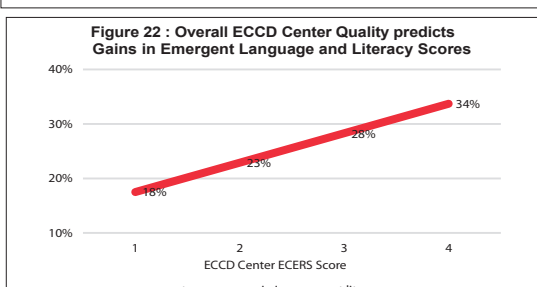


Figure 11 demonstrates that ELMI Parenting group started with lowest rates of engagement at baseline but improved the most in terms of learning and play activities at home, outscoring all other groups at midline. It looks that ELMI parenting families embraced the idea of play and learning at home and took their role seriously.



Looking at the correlation between quality (ECERS scores) and children's gains in literacy, figure 22 shows that the gains of ELMI children attending a lower quality ECD center over the course of the project are about 18%, but the gains of children attending a high quality ECD center are at 34%.