Understanding improvements in students' foundational learning via Top Parent

This fact sheet captures key findings of a summative research study conducted for Top Parent (TP), a parent- and child-facing vernacular app for parental engagement and foundational learning for children. The study was conducted in partnership with Central Square Foundation and Saajha Foundation.

Background

- Research shows that parents can play a critical role to ensure a child's readiness for school and for life. However, previous surveys have shown that in low-income communities, parents have said that they don't feel 'Saksham' (capable) to support their children's education, and may lack the confidence and capacity to meaningfully support their child in the learning process.
- Technology can be a low-cost, scalable, and easy-to-use medium to build parents' capacity to engage with their child, and to deliver high-quality learning content to children.

Focus

Parental engagement and **foundational learning** through technology

Top Parent is a free, direct-to-consumer mobile solution designed to deliver age/grade specific content using multimedia to parents and children (3-8 years), which is linguistically and culturally relevant. This content is supported by engagement strategies like customized nudges, incentives, rewards, etc., that are aimed at improving usage, app retention, and learning outcomes.

260 Mn+ learners in India

50% **unable to read and do math at grade level** (ASER 2018)

Research questions

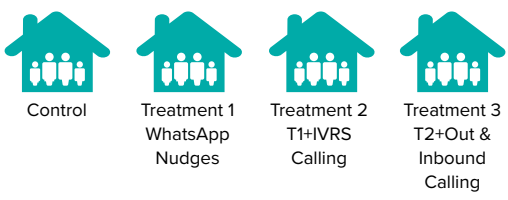
To what extent do the additional user engagement interventions lead to improvement in app usage, parental engagement, and learning outcomes (LOs)?

What is the relationship between parental engagement and learning outcomes, and unpacking the effectiveness of TP in increasing parental engagement and LOs?

Methodology

Partner with Saajha to enroll 712 families to download Top Parent → Segment randomly into three treatment groups → Conduct pre-test with ~250 households → Deploy the Top Parent intervention over 24 weeks → Support treatment groups via WhatsApp, IVRS and inbound calling (volunteers calling parents) → Conduct post-test with ~250 households

Study design



ANALYSIS TECHNIQUE	Differences-in-differences along with propensity score matching
	IRT-based scaled creation
	Descriptive statistics

Key findings

Learning outcomes

- Statistically significant **improvements in numeracy skills** observed for intervention group children between pre- and post-test, with children from grades 1 and 2 seeing improvements in higher order competencies, such as word problems. Mixed results are seen for literacy.
- Prior to the intervention, a larger proportion of girls across different age groups were at the 'Below Basic' and 'Basic' levels in terms of numeracy skills, as compared to boys. At the post-test stage, a **higher proportion of girls than boys moved up the numeracy competency spectrum** and exhibited 'Advanced' level skills.

Parent knowledge, attitudes, and practices

- There were statistically significant **improvements in parental knowledge** scores – 96% parents said that they agree that "parental engagement is one of the key levers for success in school and life for a child" at the end of the intervention, compared to 90% at pre-test.
- There were **some positive results with respect to parent practices** around FLN. For e.g., the percentage of parents who said they "read out loud to the child/ with the child from a newspaper or school textbook" increased from 74% at pre-test to 87% at post-test.
- **Parental attitudes, however, did not necessarily improve** as a result of increased knowledge.

Engagement interventions

- **WhatsApp nudges were cost-efficient and showed higher effectiveness at producing app engagement** than other mechanisms, with 50% parents engaging after a WhatsApp nudge. The average number of app engagements post-nudges were 2.41, higher than for IVRS and inbound calling (volunteers calling parents).
- **Users tend to engage with IVRS calls** (around 60% of households received at least half of the IVRS calls placed, and average listening duration was 20 seconds) but it did not lead to further app activity.
- Inbound calling sparked subsequent app activity similar to WhatsApp nudges, but was a significantly more expensive intervention.

Implications and way forward

1 **Tech-led learning at home that supplements in-school learning is promising for learning gains in FLN in India.** Early results also indicate that a tech-led program, such as Top Parent, can be effective in improving learning outcomes for girls in particular. Engaging parents meaningfully as we move forward will be key to unlocking adoption and engagement in an at-home setting.

2 **Tech-led parental engagement and capacity building can be enabling to increase knowledge of best practices for parenting and learning at home.** However, EdTech organizations still need to figure out how to move the needle on attitudes and practices in the home – further research on strategies for sustained behavior change through technology is recommended.

3 **Low-tech messaging platforms like WhatsApp are promising and cost-effective tools for increasing engagement on EdTech at home,** and providing timely nudges/reminders to parents. Further research on content, timing, and personalization of nudges is recommended.