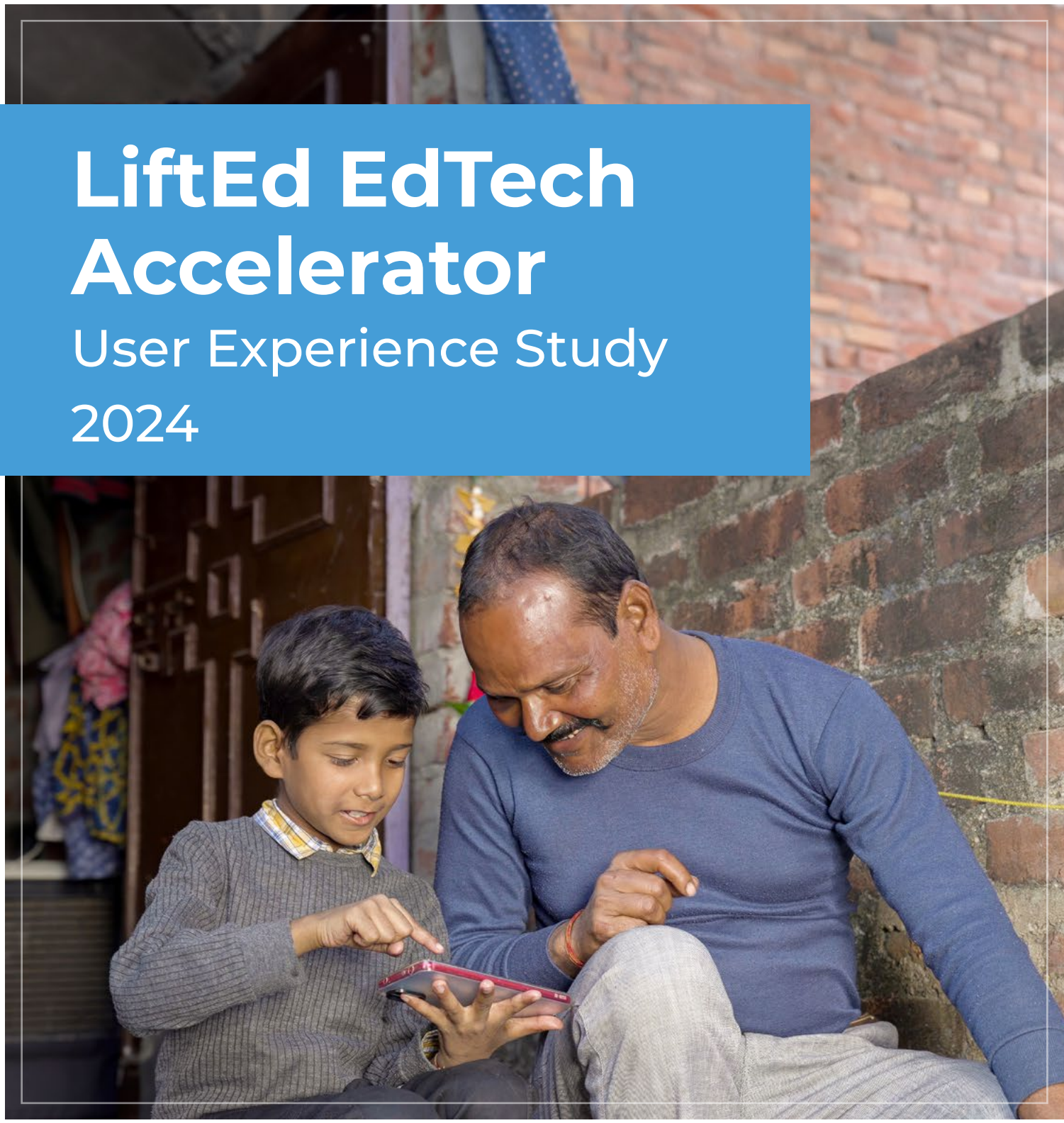
LiftEd Transforming Foundational Literacy and Numeracy

EDTECH ACCELERATOR

LiftEd EdTech Accelerator

User Experience Study 2024



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User Experience Study 2024

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We hope the study findings will help stakeholders get a deeper understanding of the EdTech user journey and contribute to the collective evidence on EdTech for foundational learning.

In deep gratitude,
Central Square Foundation

1 Background

1.1 Introduction

Foundational Literacy and Numeracy (FLN) — the ability to read, write, comprehend, and perform basic mathematical operations by the end of Grade 3 — is the cornerstone of lifelong learning.[1, 2, 3, 4] In India, significant learning deficits emerge early, particularly among children aged 4 to 8. Annual Status of Education Report (ASER) data over the past decade consistently highlights low foundational learning levels, exacerbating challenges as children progress through school finding it increasingly difficult to grasp what is being taught in later grades. In 2022, only 21% of Grade 3 students could read a Grade 2-level text, and merely 26% could perform basic subtraction.[5]

To tackle these challenges, the Government of India has introduced multiple initiatives. The National Education Policy (NEP) 2020 conceptualises FLN as a five-year continuum (three years of pre-school plus Grades 1 and 2) and emphasises measures such as revised curricula, technology integration and teacher capacity-building.[6] The National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) launched in July 2021, sets ambitious FLN targets for preschool to Grade 3 by 2026-27. Similarly, the Central Board of Secondary Education (CBSE) Reading Mission (2021) provides Hindi and English reading materials to enhance comprehension skills in CBSE schools.[7] Complementary programmes include the National Curriculum Framework for Foundational Stage (2022) and Jaadui Pitaara (2023), a repository of teaching materials in 13 regional languages. Progress is monitored through the National Achievement Survey (NAS) and Foundational Learning Survey (FLS), which evaluate FLN outcomes. Further, budget allocations for education under Samagra Shiksha have increased steadily, from ₹31,050 crores (~4200 million USD) in FY 2021-22 to an estimated ₹37,500 crores (~4500 million USD) in FY 2024-25.[8]

Concurrent to the central government initiatives, state governments, in collaboration with private partners and civil society organisations, have implemented tailored initiatives to bridge learning gaps.

1.2 Inclusive EdTech for Foundational Learning

Educational technology (EdTech) harnesses the power of technology to enhance teaching and learning, both in classrooms and at home. It offers innovative solutions to address critical educational challenges, such as varying teacher quality, diverse learning levels in classrooms and limited student access to quality instructional resources. By empowering teachers with

1 Ministry of Human Resource Development, Government of India. (2020). National Education Policy 2020
2 Institute for Competitiveness. (n.d.). State of Foundational Literacy and Numeracy in India
3 Ministry of Education, Government of India. (n.d.). About Foundation Literacy and Numeracy
4 Sinha, A (2023). Maximising India's demographic dividend through foundational literacy and numeracy *Hindustan Times*
5 Annual Status of Education Report (ASER). (2022). ASER 2022 National Findings
6 Ministry of Human Resource Development, Government of India. (2020). National Education Policy 2020
7 Storyweaver (n.d.). CBSE Reading Mission
8 The Hindu. (2024). Budget 2024: PM Poshan, Samagra Shiksha allocations much lower than pre-pandemic years

tools for effective pedagogy and enabling parents to support their children with interactive resources and progress tracking, EdTech may have the potential to transform learning outcomes when designed with high-quality, pedagogically sound principles.

Ensuring access to digital infrastructure for children from low-income households is becoming increasingly achievable. A recent study indicates that 72% children from low-income households have access to a shared device, with no variation observed by gender.[9] Additionally, 74% children spend more than 30 minutes daily on their parents' phones.[10] Data from ASER 2022 shows that smartphone ownership in rural India more than doubled (from 36% to 75%) between 2018 and 2022.[11] The report further revealed that over 95% of rural households now have a mobile phone, 75% have a smartphone, and of these, almost 90% households had internet available on the day of the survey. This widespread smartphone access opens up significant opportunities for leveraging EdTech solutions to improve learning outcomes and bridge educational gaps.

Current EdTech solutions are being built for middle-income and high-income India, with the content being primarily in English, contextually unconnected and the subscription costs being out of reach of the low-income segment.

There is emerging evidence on the use of EdTech for supporting learning at home globally. The Global Learning XPRIZE Competition, launched in 2014, incentivised teams from around the world to create open-sourced, scalable software that empowers children to achieve foundational learning skills, and saw learning gains for both literacy and numeracy across competing solutions.[12] Similarly, Angrist, Bergman, and Matsheng provide experimental evidence on strategies to support learning when schools close.[13] Using a randomised control design, they tested two low-technology interventions in Botswana – SMS messages and phone calls – with parents to support their child's learning, and found that combined treatment improves learning by 0.12 standard deviations. This translates to 0.89 standard deviations of learning per USD 100, ranking among the most cost-effective interventions to improve learning.

To unlock EdTech's transformative potential, especially for low-income communities, it is essential to design inclusive solutions that address foundational learning challenges and generate actionable evidence on their effectiveness. Bridging these gaps will ensure that EdTech becomes a critical lever for equitable and impactful education in India. It was with this objective that the **LiftEd EdTech Accelerator** was set up.

1.3 LiftEd EdTech Accelerator

To bridge the gaps as defined above and to leverage the opportunity that India has, a consortium of non-profit and philanthropic organisations have set up a LiftEd EdTech Accelerator, a two-year initiative from April 2023-25, to support foundational learning of children using EdTech. **The Accelerator aims to support the NIPUN Bharat mission to significantly shape the future of tech-based learning at home for foundational literacy and numeracy in India by reaching 2.5 million children by 2025.**

9 Central Square Foundation. (2023). Bharat Survey for EdTech (BaSE) Report 2023
10 Central Square Foundation. (2023). Bharat Survey for EdTech (BaSE) Report 2023
11 Annual Status of Education Report (ASER). (2022). Annual Status of Education Report (Rural) 2022
12 Global Learning X Prize. (n.d.). Global Learning X Prize: Executive Summary
13 Angrist, N., Bergman, P. & Matsheng, M. (2022). Experimental evidence on learning using low-tech when school is out *Nature Human Behaviour*, 6, 941-950

The LiftEd EdTech Accelerator is anchored by Michael & Susan Dell Foundation, Reliance Foundation and UBS Optimus Foundation as Founding Partners, the British Asian Trust as the Programme Leader and Central Square Foundation as the Design and Technical Partner.

The Accelerator aims to catalyse the supply of contextually relevant and pedagogically sound learning solutions, generate compelling evidence on their efficacy, work with governments to enhance the efficacy of EdTech adoption and create public goods to address systemic challenges in the ecosystem.

The Accelerator aims to support eight high-quality EdTech solutions for two years through impact-focused grant funding, dedicated mentorship and capacity-building support to unlock the full potential of the EdTech solutions. The solutions were onboarded into three cohorts, each addressing key challenges in the Indian EdTech ecosystem. The cohorts focused on:

1) **Scale** – products looking to discover and unlock new pathways to scale - ThinkZone

2) **Engagement** – products seeking strategies to deepen engagement with the users - Chimple, Ei Mindspark, Pratham, Rocket Learning, Top Parent

3) **Product Contextualisation** – products developing pedagogically sound and contextually relevant solutions specifically for low-income India - Amira Learning and Sesame Workshop India (SWI)

On the demand side, the Accelerator focuses on driving the adoption and institutionalisation of tech based home learning for FLN within State Governments, while also exploring innovative pathways for EdTech integration through partnerships with retail channels, such as gig economy organisations and self-help groups (SHGs).

To tackle the challenge of limited existing evidence on 'what works' in EdTech and to allow for ongoing innovation and progress, the Accelerator's evidence generation agenda includes

1) **Learning Outcomes Evaluation** – to assess the impact on student learning outcomes

2) **Impact of Acceleration study** – to capture the effectiveness of the strategies implemented within the Accelerator

3) **Insights on User Experience Study** – a qualitative analysis that gathers feedback from end users on key aspects of the EdTech programme lifecycle, including acquisition, onboarding, engagement and retention

Student learning at home using the EdTech application *Chalo! Sesame Street* in Lucknow, Uttar Pradesh

Photo Credits: CSF

These evaluations are currently being conducted under the supervision of the Principal Investigator, Prof. Tarun Jain (Associate Professor of Economics, IIM Ahmedabad and the Reserve Bank of India Chair in Finance and Economics) by experts from Sambodhi Research (qualitative study) and Educational Initiatives (quantitative study) and will provide actionable insights to inform future interventions and improvements.

This report provides insights from the User Experience (UX) Study for the products that are part of the Scale and Engagement cohorts.

2 User Experience (UX) Study

2.1 Description of the Study

The EdTech Accelerator brings together a diverse cohort of solutions operating within India's low-income FLN EdTech ecosystem. These solutions adopt varied approaches to user engagement, leveraging distinct models and innovative product features to drive learning outcomes. Their strategies, informed by deep contextual knowledge, address key stages of the user journey — acquisition, onboarding, engagement and retention.

This User Experience (UX) study systematically explores these stages to identify best practices, challenges and contextual factors influencing outcomes. By analysing what works (or does not) and understanding the reasons behind these results, the study aims to offer actionable insights for the EdTech ecosystem.

The study employs qualitative methods, including in-depth interviews (IDIs) and focus group discussions (FGDs), to capture perspectives from a range of stakeholders — children, parents, teachers, and community resource persons — depending on the engagement model. It focuses on the six EdTech solutions that feature in the Scale or Engagement cohorts of the EdTech Accelerator ThinkZone, Chimple, Ei Mindspark, Pratham, Rocket Learning, Top Parent. The geographies for the study are provided in the table below:

EdTech Partner	Geography
ThinkZone	Odisha
Chimple	Rajasthan
Ei Mindspark	Rajasthan
Pratham	Maharashtra
Rocket Learning	Delhi-NCR
Top Parent	Delhi-NCR

(Note: Amira Learning and Sesame Workshop India (SWI) were excluded as they were a part of the contextualisation cohort and their products were not deployed in a stable state at the time this study was conducted).

The key objectives of the study are stated as follows:

1) **Analyse strategies for user acquisition and onboarding, engagement and retention** to identify unique and shared approaches, contextual determinants and technological features that drive user behaviour across these elements of the value chain within low-income settings.

2) **Understand barriers and inefficiencies** in user engagement to inform strategic and operational decision-making while highlighting the opportunities for cross-pollination of best practices across the EdTech ecosystem.

2.2 Study Design

The study followed a structured process, beginning with a literature review and consultations with CSF and partner organisations, which informed the development of a conceptual-analytical framework. This framework (illustrated in Figure 1) identifies key levers influencing acquisition, onboarding, engagement and retention within the EdTech ecosystem. The framework was designed to facilitate the identification of best practices and contextual factors associated with success. In this context, success refers to the acquisition of new users and improved engagement and retention rates.

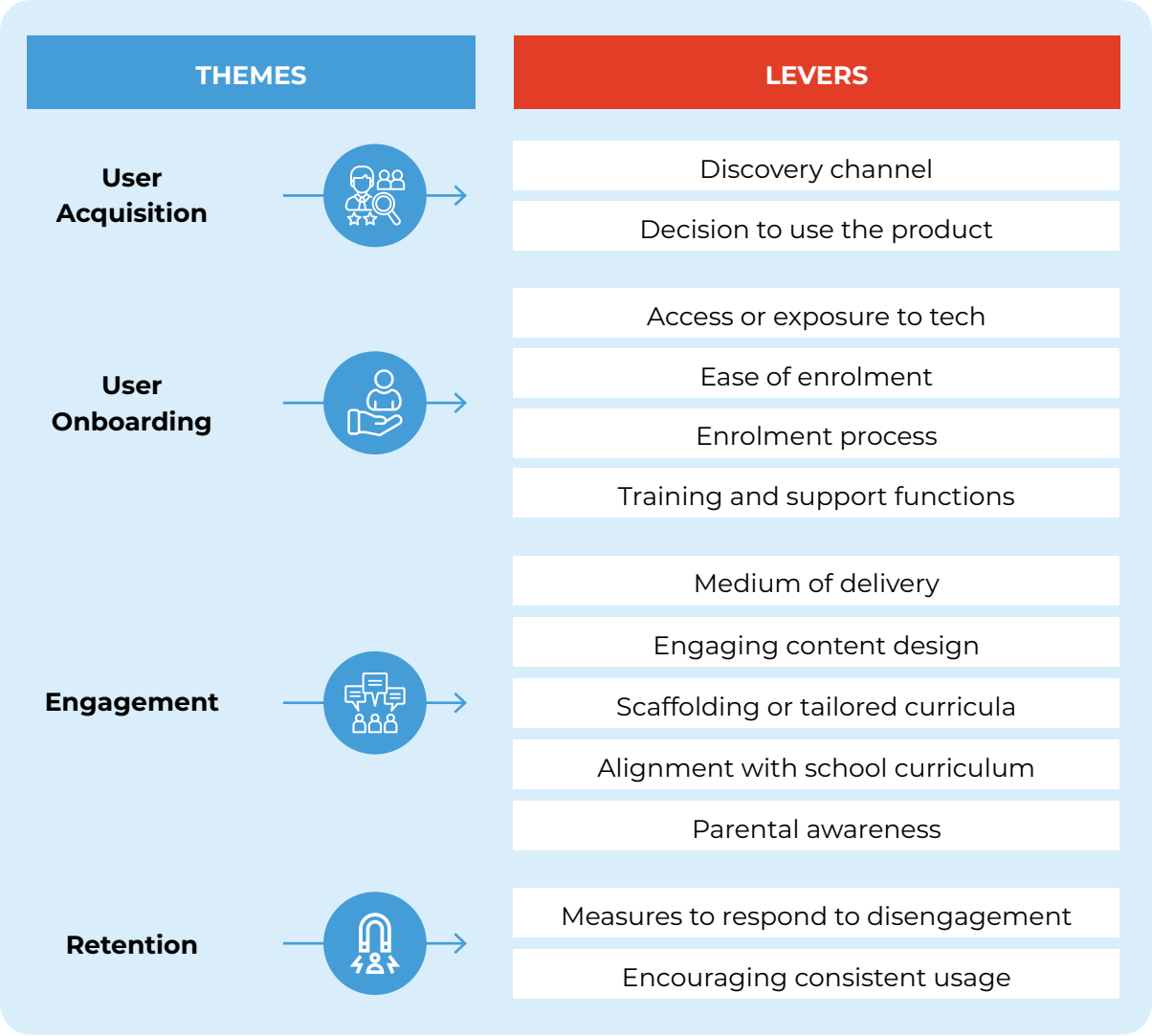


Figure 1: Framework of Inquiry

Based on the framework, hypotheses were formulated for each stakeholder group (children, parents, teachers, community resource persons, field workers) and tailored to specific EdTech models. These hypotheses informed the design of data collection tools, which were subsequently piloted. Insights from the pilot phase were used to refine and finalise the tools (see Annexure 5.1 for the complete set of tools developed).

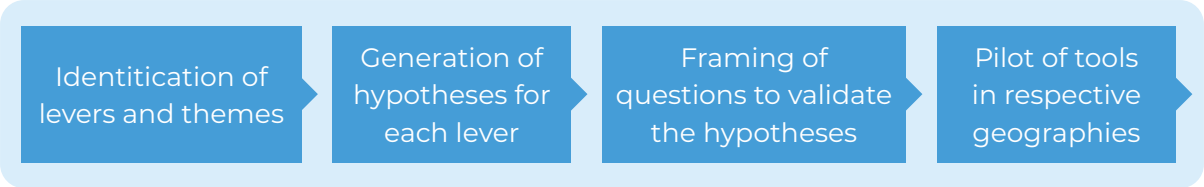


Figure 2: Steps in Tool Creation

Following the pilot, a sample was finalised in consultation with partner organisations and CSF, comprising 31 parents, 24 children, 9 teachers, 2 field workers and 2 School Management Committee (SMC) members (see Annexure 5.1.3 for detailed sampling information).

To conduct the data collection, four researchers were recruited based on their relevant linguistic skills and trained through iterative classroom and field sessions (see Annexure 5.2 for training details). During the data collection phase, researchers maintained detailed field notes and audio recordings, with prior consent from interviewees. Transcriptions of the audio recordings were subsequently analysed using a pre-defined coding framework developed collaboratively with CSF.

The findings were synthesised to identify patterns, outliers and cross-stakeholder corroborations. At the Accelerator level, facilitators and barriers specific to each partner organisation were mapped. This analysis yielded critical insights into 'what works' and 'what does not work', contextualised within the diverse operational environments of the EdTech solutions.

2.3 Profile of Users in the Study

The study included 31 parents and their children, comprising 13 boys and 11 girls, who were users of the EdTech solutions[14]. Participants were selected randomly and interviewed in locations convenient to them, including their homes, schools or common community spaces. The majority of the children were in Grade 3, with a smaller proportion in Grade 2, consistent with the Accelerator's target demography.

The majority of the interviewed parents were mothers. This was not a deliberate sampling choice but rather a result of the user databases maintained by EdTech partners, which predominantly listed mothers' contact details. Field interactions further revealed that mothers were primarily responsible for supporting their children's educational activities. They assisted with schoolwork, participated in parent-teacher meetings, facilitated activities and worksheets provided by the EdTech solutions and monitored their children's learning progress.

Notably, nearly all mothers, except one, were either homemakers, engaged in informal home-based work or involved in seasonal farming. This availability enabled them to oversee their children's education. Additionally, the majority of mothers were literate, having completed at least Grade 5, with several achieving Grade 10, equipping them to provide support to their children. These findings highlight the gendered dimensions of parenting, wherein societal norms and expectations position mothers as the primary caregivers and educators within households.

14 For Pratham; 2 Leader Mothers, 9 Other Mothers (via focused group discussions), 4 children (2 of the Leader Mothers and 2 children of one of the Other Mothers from each FGD) were interviewed.

On average, the families of the participants comprised three to five members. Joint family structures were more common in Rajasthan and Maharashtra, while nuclear family setups predominated in other regions. Most households had two to three children, with Rajasthan (the site of the Mindspark model) being an outlier, with an average of four children per household. All children, including their siblings, attended government schools.

Household incomes were primarily derived from informal sources, with fathers working as drivers, daily wage labourers, coolies or construction workers. Few households reported regular salaried income or income from business enterprises. Across the sample, households could be categorised as low-income, with monthly incomes ranging between ₹18,000 and ₹25,000 (USD 215 to USD 300). This aligns with the Accelerator's objective of targeting low-income households to enhance access to and engagement with EdTech solutions.

As part of the study, two field workers, two School Management Committee (SMC) members and nine teachers were interviewed across five of the EdTech models. The teacher sample included two female teachers each for Chimple, Pratham, Rocket Learning and ThinkZone, while one male teacher was interviewed for Ei Mindspark. These interviews aimed to provide deeper insights into the demographic and socio-economic contexts of the parents and children engaged with the EdTech solutions. Additionally, the study explored teachers' experiences in facilitating or monitoring the activities outlined under their respective models.

All of the interviewed teachers (except one) owned personal smartphones and reported frequent use of these devices for various purposes, including communication (e.g. WhatsApp), financial transactions (e.g. Google Pay) and entertainment (e.g. Instagram and Facebook).[15]

2.4 Description of EdTech Models

All six EdTech models deploy at-home solutions targeting households in low-income contexts, aiming to enhance children's FLN skills through pedagogically aligned and contextually relevant solutions. These programmes also leverage engagement from parents, teachers and the broader community. However, there is significant diversity in terms of the specific goals of each EdTech partner within the Accelerator, as well as the design and rollout strategies employed.

Regarding design, the following models can be identified within the broader Indian context for low-income households:

1) **B2C (Business to Consumer) Model:** these EdTech solutions directly acquire users through digital marketing.

2) **B2G (Business to Government) Model:** users are acquired through government partnerships and solution deployment occurs within the government school ecosystem.

3) **B2B (Business to Business) Model:** users are acquired through partnerships with non-governmental institutions.

4) **Community-based Model:** the EdTech solution works with a network of volunteers, field staff or local NGO partners to implement programmes on the ground.

15 In the one case where the teacher did not own a smartphone, she used her relative's smartphone.

Organisations may employ multiple models based on contextual needs. For instance, Top Parent follows a direct-to-user (B2C) model, while Rocket Learning and ThinkZone primarily interface with the government school ecosystem with Chimple following both the B2G and the B2B models in different states. Pratham's model combines elements of both community-based and government ecosystem approaches and Ei Mindspark follows a community-based model.

Further diversity is evident in the rollout strategies, including variations in teacher involvement, the types and formats of nudges used and the roles of partner programme staff and community resource persons (e.g. field workers). For example, in the Ei Mindspark model, field workers are responsible for implementation, whereas Rocket Learning and ThinkZone models rely heavily on teachers and programme staff respectively. Details on the partner models are available in the Annexure 5.3.

2.5 Definition of Stages in the User Journey

In the framework of inquiry, the following definitions are used:

1) **Acquisition** refers to how users discover the solution and their decision to engage with it and includes a commentary on access, influencers affecting the decision and influencer training.

2) **Onboarding** encompasses the process of downloading the app – product registration and the associated training provided.

3) **Engagement** is shaped by the product (content, user interface, core tech, engagement feature), peer effects/ social pull mechanism and the role of the learning agent – facilitators who support the learning journey of the child.

4) **Retention** focuses on strategies to address disengagement and minimise churn, aiming to foster user stickiness through differentiating features, recall elements and re-engagement tactics, such as nudges during periods of reduced activity.

The analysis process revealed that the concept of retention warrants further reconsideration. Two key observations support this argument. First, the distinction between engagement and retention is often blurred, as the latter overlaps with the elements of product features deployed for the former. For example, many models employed nudges targeting parents to counteract reduced engagement, effectively serving both as engagement tools and retention strategies. Thus, nudges are relevant to both themes. Second, a comprehensive understanding of retention necessitates insights from users who have dropped off, to identify the reasons for disengagement and evaluate whether— and how — these issues were addressed by the EdTech partner organisations. However, all stakeholders interviewed were current users, which limited the analysis to the themes of acquisition, onboarding and engagement. Future studies should incorporate interviews with both loyal advocates and users who have dropped off, to capture the full spectrum of retention dynamics.

3 Accelerator Level Findings

This section offers an in-depth exploration of the facilitators and barriers to effective acquisition, onboarding and engagement. This includes a discussion of common strategies across EdTech models, as well as specific strategies unique to a particular model.

3.1 Phase 1: Acquisition

This section details the first phase of user acquisition, focusing on three key themes: access, influencer and influencer training. Each theme is explored through sub-themes that represent the levers driving change within the respective domains. Access is defined as access of the user to a smartphone, internet availability and affordability, influencer is defined as an individual who creates awareness about the product or programme with the user and influencer training is the product and programme information provided to help download, enrol and use the app.

3.1.1 Access

Most households (29 out of 31 cases) own a smartphone. The profile of the stakeholders revealed that the mothers participated in the EdTech programmes and facilitated app-related activities with their child. Therefore, understanding mothers' ownership of a smartphone is crucial. In most cases, the mother personally owned a smartphone, which was used by their children to engage with the EdTech solution. In one case (Rocket Learning) a mother working outside the home left her smartphone behind for the child to use. When mothers owned feature phones (e.g., in Top Parent, Ei Mindspark and Pratham), fathers' smartphones were used in the evenings after work. However, in situations where neither parent owned a smartphone, children relied on devices from relatives (Top Parent, Ei Mindspark) or tuition teachers (ThinkZone) to access the solution. The findings highlight that limited access to smartphones — especially when mothers did not own one — significantly constrained children's engagement time with the EdTech solutions. For example, reliance on fathers' smartphones often reduced daily interaction due to their late return from work or personal need for the device. The impact was even more pronounced when relatives' phones were used, as children were unable to engage consistently or daily.

> *(So... when you go to work... you leave your phone at home?) Yes, I leave my phone at home only. (So do the kids use your phone at that time?) Yes. They see the e-Pathshala work and complete it in the daytime.*
>
> *(Parent 1, Rocket Learning)*

All households reported access to the internet, with the majority relying on mobile data for internet access. Some parents indicated that they recharged the mobile data to ensure continuity of the internet access for engaging on the app (Top Parent, ThinkZone). However, in certain cases, poor quality of internet connectivity (Rocket Learning, Ei Mindspark) and affordability of mobile data (Ei Mindspark, Chimple, Rocket Learning, Pratham) hindered app engagement and activity completion.[16]

> *Sure, there can be difficulty because of that (consumption of internet)... If by the end of week, the internet recharge is used up, I have to ask his father. He says that only when the salary comes, can he recharge my phone. So, we wait for his papa to come home and use his hotspot for homework at night. But, I make sure that my child completes his work.*
>
> *(Parent 2, Chimple)*

3.1.2 Influencer

With regard to the influencer, three models emerge, indicating diversity in how users discover the product (discovery channel), the training they get and the support that is provided to help the user to begin their journey on the solution. The three models are: i) a model with no influencer / direct to consumer (Top Parent), ii) a model where the influencer directly reaches the user (such as the teacher in Rocket Learning and Chimple or field workers in Ei Mindspark) and iii) a cascade model where Government cadre trains school teachers, who in turn along with respective field teams reach parents as in the case of ThinkZone and Leader Mothers as in the case of Pratham. Findings indicate that the users of Top Parent, as intended, discover the app through digital ads on online platforms (Google, YouTube videos) and social networks (word of mouth). In the remaining models, teachers, partner organisation's field staff and/or community field workers support the acquisition of the users.

> *Because she (the fieldworker) is a local, she understands the background of every child. So, they feel a strong connection with her. She also works according to the background of every child. The children relate to her personality as well, because she is just like their elder sister.*
>
> *(Teacher, Ei Mindspark)*

Given that parents are the primary learning agents in a child's learning journey in the foundational years, their willingness to engage with the programme becomes critical to understand. The study indicated the parents were motivated to participate in the programme for various reasons – perceived utility, government / teacher mandate and pricing. For instance, across the board, parents believed that visual / image content, activities and worksheets kept learning interesting for children and aided in understanding and recall of content. In cases where the programme was positioned as a school programme (Rocket Learning, Chimple, Pratham), the parents perceived it as credible and mandatory in nature. In ThinkZone, the product being free of cost was highlighted as a key driver. In the Ei Mindspark model, field workers noted a lack of parental engagement with the

16 While explicitly called out in only the Rocket Learning case, this may also be because of tech-specifications of users' phones.

app, attributing it to low or no literacy levels. This also resulted in the need to invest more time in building trust and rapport with parents. While the Ei Mindspark model does not prioritise fostering parental involvement, research underscores its importance in enhancing children's academic performance and socio-emotional development, particularly in early childhood. Enhancing parental and community engagement in Ei Mindspark's target areas could improve outcomes and provide valuable insights for implementing EdTech solutions in remote, low-income communities.

> *So, when my kids were younger, I used to keep looking for content that my kids could learn from. For example, Math Cricket is an app I found. Then, one day, while exploring, I came across Top Parent. I used to search for a kids learning app. Instead of looking for useless content, we searched for things that could benefit our kids so they could learn rather than just play games. So, I saw Top Parent, downloaded it and was impressed as it was for children.*
>
> *(Parent 4, Top Parent)*

Mothers and child doing 'Idea Video' activities shared by *Pratham* in Mumbai suburban and Aurangabad district, Maharashtra

Photo Credits: Pratham

3.1.3 Influencer Training

Training of the influencers plays a key role in ensuring they are equipped with the knowledge of the product and programme to effectively onboard the users. In a few models, the on-ground implementation of influencer training processes showed a slight variation from the procedures outlined by EdTech partners. For example, in the Chimple model, although individual teacher training by Chimple staff was planned, the observed practice involved Chimple staff training a select group of teachers who then trained their peers in a train-the-trainer approach. In the Pratham model, while Leader Mothers (LM) are to be trained by teachers, it was observed that some LMs received training and support directly from Pratham's field staff. While these modifications to design and deployment seem to emerge organically to meet the needs of *in situ* conditions, such variations in on-ground deployment of programmes provide an opportunity for EdTech partners to delve further on how these shape engagement for their respective EdTech solutions.

3.2 Phase 2: Onboarding

After user acquisition, the next critical step is onboarding, which refers to the process of introducing users to the EdTech solution. This phase involves tasks such as product registration for app-based solutions or onboarding in WhatsApp groups for platforms using that interface and training of the users.

3.2.1 Product Registration or Onboarding

Regarding product registration, partners generally simplified the process and often provided external support to ensure ease of entry. Across the different models, some solutions completely eliminated formal registration, while others streamlined the process. For WhatsApp-based models (Rocket Learning, ThinkZone and Pratham), parents were able to join directly through shared links or by being added to groups by teachers, bypassing the need for individual account creation. Top Parent, with its user-centric design, ensured a smooth process by creating an intuitive interface. Similarly, models like Chimple and Ei Mindspark offered registration support through teachers or field workers.

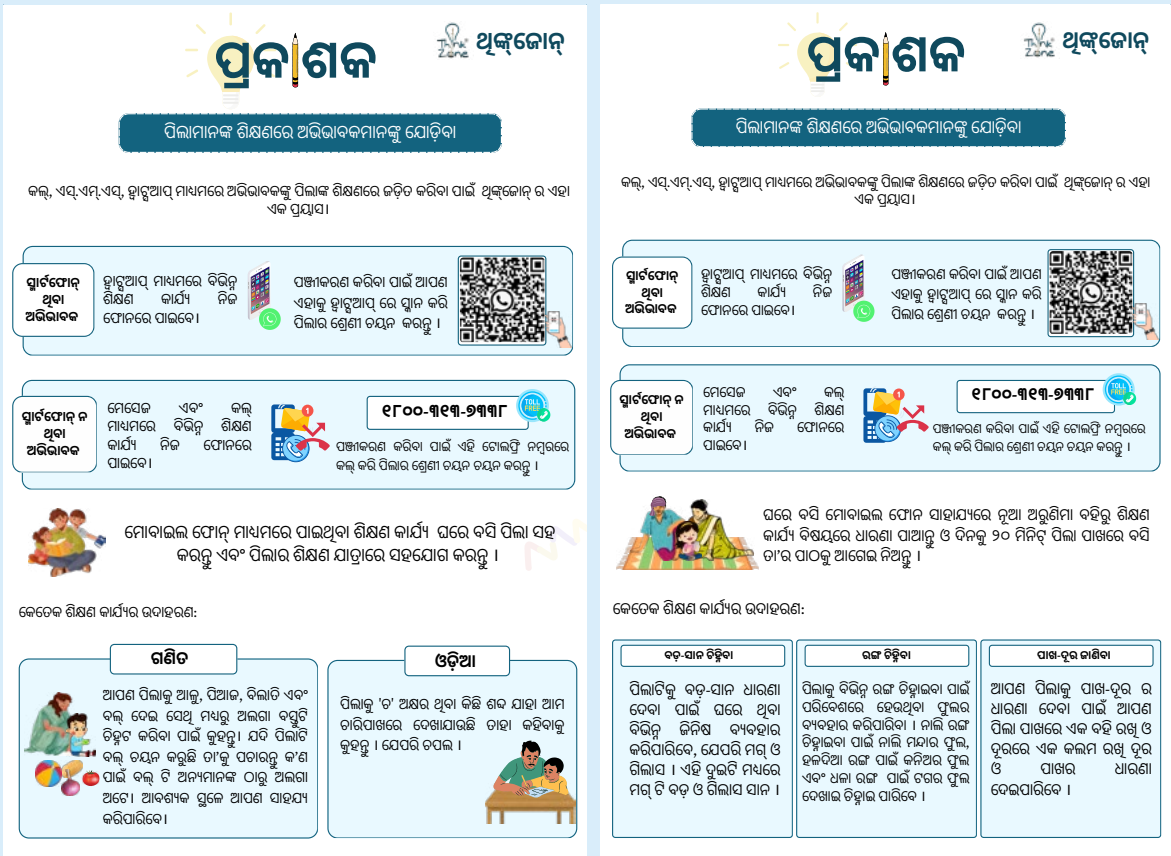
Student registering on the *Ei Mindspark* application in Ghazipur, New Delhi

Photo Credits: CSF

3.2.2 Training of Users

Training for users, primarily parents, was another essential aspect of the onboarding process. Top Parent, being a B2C application, was designed with an intuitive interface that required no formal training. The app was self-explanatory, localised in the native language with voice-overs, ensuring that parents could easily understand and navigate the platform. For other models, support was provided by teachers, programme staff or field workers to guide users through the process. In some models, onboarding included hands-on support through teacher-led sessions in parent-teacher forums, which was observed in Chimple, ThinkZone, Rocket Learning and Pratham. In the Ei Mindspark model, field workers took a more direct role by training children rather than parents.

> *The school sir called us to the school and a meeting was organised where a leaflet mentioning "PRAKASHAK" was shared, along with the instructions on how to use it. The ThinkZone staff assisted us in using it.*
>
> *(Parent 1, ThinkZone)*



Onboarding guidelines and QR code shared by *ThinkZone* with parents

Photo Credits: ThinkZone

Despite the planned onboarding processes, field observations revealed discrepancies in their implementation. In Rocket Learning, while the model anticipated that teachers would introduce parents to the programme during parent-teacher meetings, admission time or via school WhatsApp groups, this process was not consistently followed. Some parents were added to the WhatsApp groups before they were properly introduced to the programme. In the ThinkZone model, while the onboarding process for smartphone users was relatively smooth, the protocols for feature phone users were unclear, leading to confusion among parents. These variations highlight the challenge of delivering uniform onboarding processes across different contexts and user demographics.

These inconsistencies offer an opportunity for EdTech partners to assess how such modifications impact user engagement and adjust their strategies accordingly. By understanding the implications of these variations, partners can refine onboarding procedures to better align with local contexts and improve overall user experience.

3.3 Phase 3: Engagement

Engagement on apps is understood as the level of interaction or involvement that users have with the app. This study measures the level of engagement using three indicators: frequency (how often the user opens the app or visits the EdTech solution), duration (how long the user stays on the EdTech solution) and intensity (how actively the user uses the solution or consumes the content). Higher engagement on a pedagogically sound EdTech solution indicates increased likelihood of higher impact on children's learning outcomes. Variations with respect to frequency and duration of use are seen across the models. In the Chimple model, all the interviewed children used the app daily (frequency), for about 30 to 40 minutes (duration). In the Top Parent, Rocket Learning and Ei Mindspark models, about half of the interviewed children engaged with the app daily (frequency) and time spent ranged from 15 to 60 minutes (duration). In the ThinkZone and Pratham models, the metric for frequency and duration is different – as weekly learning activities or worksheets are provided to children, the metric reported was the time spent to complete a weekly activity or worksheet. All children reported weekly engagement (frequency) and the time taken to complete the activity or worksheet was 20 to 60 minutes in the ThinkZone model and 30 to 60 minutes in the Pratham model. Many of these EdTech solutions target engagement of 40 to 45 minutes per week – findings indicate that the solutions overall, are in the right direction in meeting this target in terms of duration.

Engagement is contingent upon the product (content, user interface, core tech, engagement feature), peer effects or social pull mechanism and the role of the learning agent – facilitators who support the learning journey of the child.

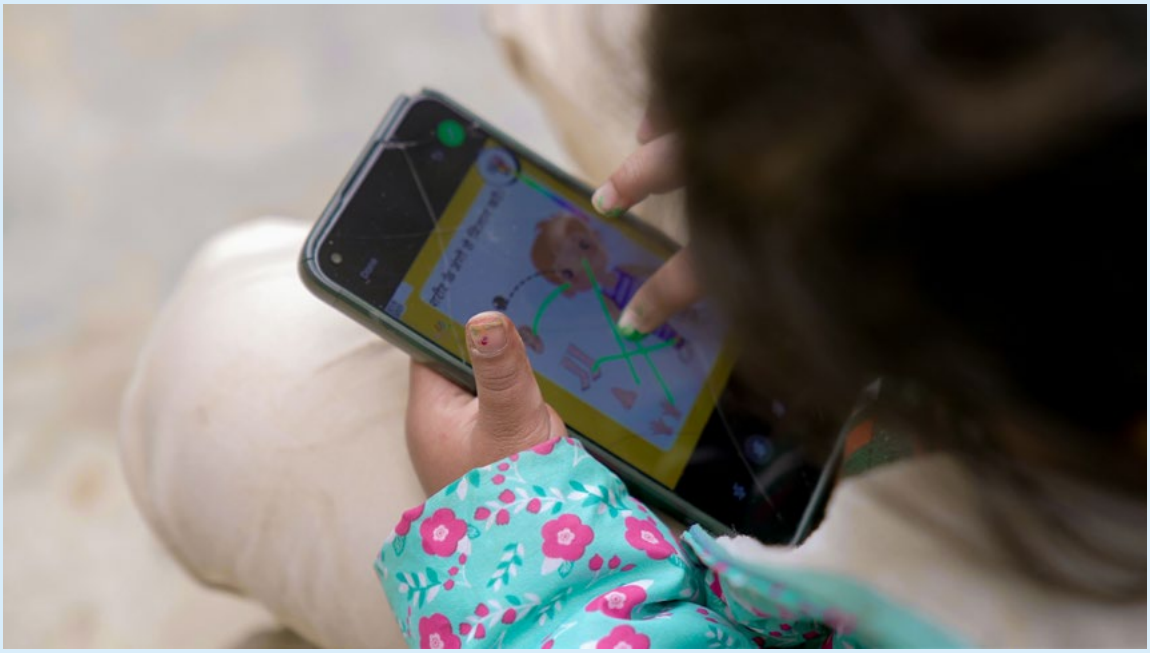
3.3.1 Product

Across the board, children enjoyed the app content. The apps allowed children to engage with FLN content in a variety of ways – videos, cartoons, games, stories, easy-to-do activities using household objects and interactive worksheets. It may also be noted that the mode of delivery of content catered to different learning styles and capabilities of children, that can hold the child's interest, explain, reinforce and help recall concepts (scaffolded learning). Teachers, for instance, reported that children who were not at a certain learning level could learn concepts by doing activities.

> *They (RL) shared a fun story. They said to teach children by taking 10 things, making them collect everything, and counting those items 10 times (What kind of items?) For example, bangles, wood, mug etc. Collect them and have the child count the number of items.*
>
> *(Parent 2, Rocket Learning)*

Parents and teachers reported that the visual or image-related nature of content, attractive (colour, design, font, use of a mascot) and an easy-to-navigate interface appealed to children in the 7 to 8 year age bracket, further deepening engagement. These characteristics, for example, led to teachers in the Rocket Learning models using app-related content to clarify and reinforce concepts in class.

> *What do children like the most in activities received from the Think Zone?) Cartoon-based stories (Which is more efficient for the users as per your observation?) WhatsApp (Why?) Because children are now very much interested in visual content and it also allows them to rewatch if someone is unale to understand.*
>
> *(SMC member 1, ThinkZone)*



Student learning at home using *Rocket Learning's* content in Ghaziabad, Uttar Pradesh

Photo Credits: CSF

A critical factor in driving engagement is the perceived alignment of content with school curricula and its potential to enhance academic performance. In the Top Parent and Ei Mindspark models, content was regarded as reinforcing learning. Top Parent enabled children to revisit or practice topics already taught in school, strengthening their understanding, while Ei Mindspark field workers observed improvements in Hindi and English language skills. In the Chimple model, teachers highlighted the app's utility in lesson planning and some parents noted its effectiveness in enhancing vocabulary and pronunciation of English words. Though the ThinkZone model is still in its early stages, one teacher remarked that its content and activities mirrored school curricula, a view echoed by parents as well.

> *In the school, the teacher is also teaching letters and words by drawing pictures, and the ThinkZone study material is based on writing words by watching pictures.*
>
> *(Parent 3, ThinkZone)*

Stakeholders also provided suggestions to improve the content and delivery of the programme. On content, in the Top Parent and Ei Mindspark models, recommendations revolved around tweaking the content in English and General Knowledge to better suit the capabilities of children and their geographical context (non-English speaking). Teachers in the Pratham model suggested that separate worksheets for subjects (Marathi, English, Mathematics) and for different grades (Grade 1, 2, 3) be provided, alluding to the need for better levelling.

While the EdTech solutions or apps are personalised and have invested deeply in contextualisation, a perception still exists among a few stakeholders that the content is tough and is not at the child's learning level. It is important therefore for EdTech partners to continue capturing stakeholder perspectives regularly (through dipstick surveys) and factor in their voices to improve the product while also communicating the value proposition of the product. In the Pratham model, Leader Mothers (LMs) need to conduct off-line weekly meetings with mothers in their communities and hand over activity or worksheets. LMs reported that they found taking printouts to be expensive, which resulted in teachers paying for and providing them with the printouts. In certain EdTech solutions, limitations of implementing the solution entirely on the smartphone, may necessitate a certain portion of the learning cycle to be rolled out independently or offline. This calls for EdTech partners to think through these pieces more closely and creatively as certain operational challenges may render the intervention less effective.

Intensity of use can be dampened if the user faces core tech problems such as the app 'hanging' or taking a long time to load. Such issues were few and far between, with only a few cases cropping up in the Top Parent and Rocket Learning models. These were probably triggered by the tech-specifications of the users' phone, the fact that mobile data was used to connect to the internet and mobile data running out.

3.3.2 Peer Effects and Social Pull Mechanisms

It is hypothesised that product features such as rewards and incentives (awards, certificates, emojis, small gifts), Top coins (in Top Parent), mascots (in Chimple and Ei Mindspark) coupled with peer effects and social pull mechanisms would drive intensity of use on the app. Rewards and incentives proved to be important motivators – children in the Rocket Learning case for example, discussed their achievements on the app with peers in school and competed with them to earn more rewards. Receiving certificates and awards in front of their peers was also reported as a source of engagement. In addition, social pull mechanisms played out positively – parents reported that seeing other children's work on the app motivated them to support children in completing activities or worksheets and uploading the same on WhatsApp groups (in Rocket Learning and Chimple).

> *When they comment 'very good' or something similar (on the WhatsApp group), children feel motivated and happy. For example, if my child's name is Vishali, they would comment "Vishali, very good". When the child hears this, they feel really good.*
>
> *(Other Mother FGD 2, Pratham)*

In-app rewards awarded to students using the *Top Parent* application

Photo Credits: Top Parent

3.3.3 Role of Learning Agents

Learning agents such as elder siblings (in Top Parent, Rocket Learning, Chimple, Ei Mindspark models), teachers (in Chimple) and field workers (in Ei Mindspark) played a key role in driving engagement. In the ThinkZone model, partner programme staff played an active role – parents reported receiving calls from staff who enquired on progress on activities. While nudges were used by several models (Top Parent, Rocket Learning, Chimple, Ei Mindspark, ThinkZone) to actuate parental engagement, it was only in the Top Parent model that parents reported receiving nudges. In addition to nudges, weekly reports (Top Parent, Rocket Learning) and leaderboards (Chimple) communicated children's performance to their parents on a weekly basis, aiding them to monitor their progress and better support them.

Teacher using the *Chimple* application to assign homework to students in Bharti Airtel Foundation's Satya Bharti schools in Ahmadpur, Haryana

Photo Credits: CSF

> *It (the application) tells us that the response is correct and well done. The colour also changes when it is wrong - red for wrong and green for correct.*
>
> *(Parent 5, Top Parent User)*

4 Conclusion

This qualitative study provides critical insights into the user experiences of six EdTech solutions supported by the LiftEd EdTech Accelerator. The findings demonstrate the potential of well-designed digital learning tools to support foundational literacy and numeracy challenges in low-income settings. Effective strategies such as localised content, interactive features and engagement driven by involvement from learning agents emerged as key facilitators of user acquisition and engagement.

Despite these successes, challenges persist, including uneven digital access, socio-economic constraints and variations in implementation fidelity. The study highlights the importance of aligning EdTech solutions with local contexts and ensuring robust training and support systems for users and facilitators. Continuous stakeholder feedback is essential to refine strategies and sustain engagement.

By addressing these challenges and building on identified best practices, EdTech solutions can serve as transformative tools for equitable education. This study provides a foundation for scaling such interventions while fostering a more inclusive and sustainable learning ecosystem.

5 Annexure

5.1 Tool Development

5.1.1 Creation of a Framework of Inquiry

Through several rounds of conversation with the partner organisations, an in-depth understanding of each EdTech model was built. Drawing on this and a review of the literature, a framework of inquiry was co-created with the CSF team. The framework delineates key levers that drive acquisition, onboarding, engagement and retention. It is designed to aid identification of best practices and conditions for 'success' for effective acquisition, onboarding, engagement and retention. As a first step, levers associated with each theme were put down (as provided in Figure 1). For example, under the user acquisition theme, the levers are discovery channels (how the user comes to know about the product) and decision to use the product (factors that influence the decision to use the product). Likewise, the levers of access or exposure to tech, ease of enrolment, the enrolment process itself and training and support drive user onboarding.

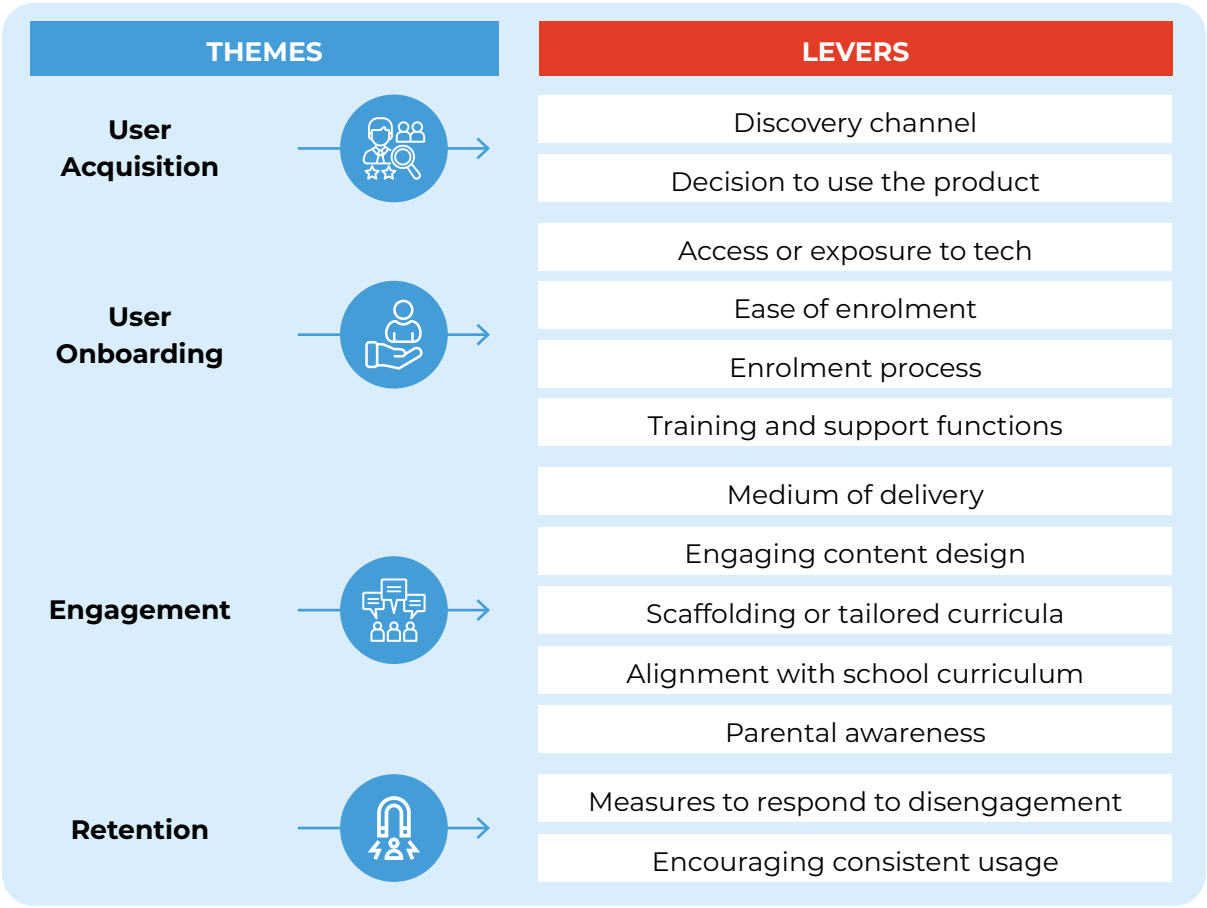


Figure 1: Framework of Inquiry

As a second step, hypothesis (es) for each of these levers, specific to the stakeholder, and for each EdTech model were generated. For example, consider the Top Parent app. Given that it is a B2C solution, users would come to know of the app either through social networks (word of mouth from neighbours, friends, family) and/or through Google ads and YouTube videos. Given that these are low-income households with plausibly low digital and textual literacy, it was hypothesised that *"social networks are a key discovery channel"*. For the access or exposure to technology, the hypothesis was that, *"access to smartphones, internet connectivity and digital literacy are important factors"* and for training and support it was assumed that *"not much training or support is needed"*. This is because of the human-centric or user-centric design of the app and an intuitive UI interface which allows users to navigate the app with ease.

Area of enquiry	Lever	Hypothesis
How does a user discover and decide to use Top Parent?	Social networks as a discovery channel	Users discover Top Parent through Google ads, word of mouth or video ads on YouTube
		Once discovered, users would make the decision to use the product based on pricing, perceived utility for child, teacher mandate or peer influence
What factors influence onboarding to the Top Parent app for parents and their children?	Access / exposure to technology	Access to smartphones, internet connectivity and digital literacy are important factors enabling seamless onboarding user experience
	Training and support	Since the application is human-centered and the UI is intuitive, parents do not require much training and support during onboarding
What factors enable continued engagement on Top Parent?	Engaging and inclusive content design for parents and students	Gamified and audio-visual content driven by peer effect leads to more engagement
		Audio support for text accounts for low parental / child education levels and helps in better engagement and user retention
		Video content targeting parent behaviour help in aiding 'positive parenting' and engagement in child's learning journey
	Scaffolding	More personalisation in the app leads to more tailored content, leading to higher engagement

Table 1: Levers and Associated Hypotheses for Top Parent

The third step involved framing questions to validate these hypotheses with stakeholders during data collection. For example, to test the hypotheses on smartphone and internet access (aforementioned), the questions that were posed to parents included - *"Do you own a smartphone? Does anyone else in the house own a smartphone? Do you use any apps on the smartphone? If yes, what are these?"*.

5.1.2 Development of the Questionnaire, Piloting and Finalisation of Tools

Data collection tools (IDIs and FGDs) for each stakeholder category (viz., parents, teachers, children, community resource persons) were created in alignment with the framework of inquiry. In conjunction with and support from the partner organisations, tools were piloted with users in specific geographies – viz., Delhi - New Delhi - NCR for Top Parent and Rocket Learning, Rajasthan for Chimple and Ei Mindspark, Odisha for ThinkZone and Maharashtra for Pratham. Based on insights from the pilot, the tools were finalised. Broadly, insights helped re-order, drop, re-phrase questions and basis depth of responses, questions and probes were added. Findings from the pilot underscored the need to:

- **Refine the Tool as per the Context:** to provide an example, the respondents knew of the intervention by different names – E-Pathshala for Ekho Foundation's Rocket Learning solution and PRAKASHAK for ThinkZone's Home Learning Programme. Similarly, words such as dashboard and application were lesser known to some communities necessitating a replacement with less technical, more simplified words in the local vocabulary.
- **Demonstrate Product Features:** often, the respondents were unable to identify application features by name. However, showing them the application or drawing a picture of the mascot (e.g. Sparky in Ei Mindspark) was found to be useful.
- **Sharpen the Rapport Building Process and Levers for Building Trust:** in school settings (e.g. Rocket Learning, Chimple), the team witnessed that parents and children were likely to give socially desirable answers, to avoid tarnishing the school's reputation or receive backlash from teachers. The team realised the importance of extending rapport-building sessions – ice-breakers, self-disclosure, playing games with the child, etc.
- **Balance the Presence of the Partner's Field Programme Team during Interactions:** in the case of Pratham, Rocket Learning and ThinkZone, the partner's programme team were invaluable in locating participants. However, the team needed to manage the location and setting of the interview to ensure that the programme team's presence did not impact the response of the participants.

5.1.3 Development of the Sampling Frame

Geographies for data collection were finalised in conjunction with the partner organisations and CSF. These were the Accelerator intervention geographies - Hanumangarh District, Rajasthan (Chimple), Ajmer District, Rajasthan (Ei Mindspark), Akola District, Maharashtra (Pratham), New Delhi - Delhi - NCR (Rocket Learning), Puri District, Odisha (ThinkZone) and East Delhi (Top Parent). Number of stakeholders from each category (children, parents, teachers, community resource persons) were determined and details for obtaining sample respondents were delineated. For example, for PRAKASHAK, the programme team provided a list of 10 schools and parents, students and teachers from each school. Out of the 10 schools, 2 were randomly selected. From each school, a sample of 3 parents and children, 2 teachers and 2 SMC members each (6 parents and children in total and 4 teachers and SMC members in total to account for non-response and drop out).

Partner	Geography			Timeline (2024)	# of Participants Interviewed			
	State	District	Block		Parent	Child	Teacher	Others
ThinkZone	Odisha	Puri	Satyabadi	19 - 25 April	3	3	2	2 (SMC Members)
Chimple	Rajasthan	Hanuman-garh	Rawatsar	22 - 24 April	4	4	2	-
Ei Mindspark	Rajasthan	Ajmer	Sodpur, Sangarwas	14 - 17 April	4	4	1	2 (Field-workers)
Pratham	Mahara-shtra	Akola	Kinkhed, Sangavi Khurd	15 - 19 April	11 (2 FGDs), (2 Leader Mothers)	4	2	
Rocket Learning	Delhi NCR	New Delhi	-	23 April - 3 May	4	4	2	-
Top Parent	Delhi NCR	New Delhi	-	15 - 22 April	5	5	-	-

Table 2: Final Sample of Stakeholders Interviewed

5.1.4 Consent Procedure

A detailed consent form was created for each stakeholder and shared with the researchers during the field training. The researchers were trained to explain the contents of the form and seek verbal consent from the interviewee before starting each interview. Consent for interviewing children (minors) was obtained from their parents or legal guardians present during the interview, and the children provided their assent.

Sample Consent Form

Introduction: Good morning or afternoon. I am (....) from Sambodhi Research and Communications Private Limited, a research consultancy organisation in India. We are trying to understand your experience of using the application Chimple for your child's learning. We would like to ask you questions regarding your experience with the group. There will be no cost to you other than your time, and your participation is completely voluntary.

Purpose: In this study, we are speaking to students, teachers and parents of students who are using Chimple and other similar applications. The main objective of the study is as follows:

- To understand areas of the study including but not limited to the process of on-boarding, usage of the application, features of the application, the design of the application and redressal of grievances
- To understand the effect of the application on the student's learning
- To understand what certain applications do right – *what works* and *what does not work*

This study is not an evaluation of your child(ren) or the school they study in. Your answers will not be used to compare your child's performance with others. I request you to kindly allow me to ask you a few questions regarding your experience using Chimple. The interview will take about 45 minutes to an hour.

Risks and Benefits: There is no risk in the study. You will not benefit directly from or be compensated for participating in this study.

Voluntary Participation: Participation in this study is voluntary, and you are free to refuse to participate. If you agree to participate, you can withdraw from the study at any time. There will be no consequences for withdrawal at any stage.

Documentation: This conversation can be documented in two ways – note-taking and audio recording – based on your consent. The audio recordings or notes will not be used for any purpose apart from the current study or shared with any third party.

Confidentiality: Your answers will be kept completely confidential and will be used for research and programme purposes only. This means that the results will never be shared with the community members, government, school staff, students or anyone who can identify you in any way. You do not have to answer questions that you do not want to answer.

Further, the following measures will be taken to maintain your confidentiality:

- No personal data will be documented
- During data entry, identifiers will be removed and replaced with identification numbers
- All data will be stored in secured server
- Only the Principal Investigators, analysts and project coordinator will have access to the full data set and all password protected folders

Sambodhi and Central Square Foundation (CSF) will assume responsibility for safeguarding and ensuring ethics at all stages of the evaluation cycle (preparation and design, data collection, data analysis, reporting, and dissemination), including protecting privacy, confidentiality and anonymity of participants, ensuring cultural sensitivity, respecting the autonomy of participants, ensuring fair recruitment of participants (including women and socially excluded groups) and ensuring that the evaluation results do not harm participants or their communities. Additionally, your contact details will not be shared with any third party and no video or photos of you, or your child will be taken during this study. However, we seek your cooperation in providing complete information.

Contact Information: If you have any questions about this study in the future or concerns about your rights as a research participant, you can call the following numbers:

#	Name	Phone Number
1	Sambodhi Research and Communications	+011 204056400
2	Dr. Tarun Jain (Associate Professor, Indian Institute of Management Ahmedabad)	-[17]
3	Sigma Research and Consulting (Institutional Review Board)	+91 1141063450

At this time, do you have any questions that you would like to ask me about this interview?

Documentation of Consent:

"I HAVE READ THE CONSENT FORM OR THE CONSENT FORM HAS BEEN READ TO ME AND I GIVE MY INFORMED CONSENT TO PARTICIPATE IN THIS STUDY".

- Do you give your consent?
- Do you consent to the audio recording of your consent?
- Do you consent to the audio recording of the study discussion or interview?
- Do you consent to the note-taker?

5.2 Researcher Training and Study Deployment

5.2.1 Recruitment and Training of Researchers and Study Deployment

Four researchers were recruited for the study and trained both in the classroom and on the field. All researchers were fluent in the languages needed to carry out data collection in the selected geographies (viz., Marathi, Hindi and Odia). Classroom training was divided into three components. First, familiarisation with FLN and EdTech (specifically solutions being deployed at home) in the Indian context, information on the LiftEd EdTech initiative, rationale and objectives of the UX study and modalities of each of the EdTech models was undertaken. A demonstration of the apps being deployed – interface, features etc. was undertaken. Second, a focus on qualitative data collection techniques (IDIs and FGDs) – processes, 'do's and don'ts' before, during and after the interviews and group discussions. Special emphasis was placed on the protocols of interviewing children – manner of asking questions, body language, proximity, time and ethical considerations. Ethical considerations are especially essential given the engagement with children aged 3 to 8 years. This involved training the researchers on sensitivity to cultural context, emotional sensitivity, communication, length of the interview and power dynamics. Third, included the data collection tool itself – how it was created, themes covered, questions and probes specific to each stakeholder category were discussed in detail. Researchers were also trained on how to handle different contextual settings – such as disruption to the interview because a participant was called away, when socially desirable responses are given, biased responses due to the presence of the programme team or teachers or principals etc. Classroom training was

17 Undisclosed for confidentiality reasons

followed by field practice sessions. Researchers were accompanied by the evaluation team to the field setting, wherein they interviewed stakeholders (children, parents, teachers) and feedback was provided to them by the evaluation team. An iterative process of field practice - feedback - re-training - field practice was followed. Researchers were provided with a field manual as well (Training Protocol).

With the support of partner organisations, permissions needed to enter schools and the community was secured. Following this, the researchers embarked on data collection. In some cases (e.g. ThinkZone, Pratham, Ei Mindspark), due to the remote location of the identified sample, the partner field team supported the researcher to contact the sampled stakeholders. For the remaining models, parents and children were directly contacted to schedule the interview (e.g. Top Parent). Interviews took place in schools, homes or common areas based on the participant's convenience. Interviews were only conducted with individuals who consented to the same. For children, their parent's consent was taken, and their assent was requested before beginning the interview. Information was captured through both audio recording and note-taking, contingent on consent from the participant. As an additional measure, daily debriefing sessions were conducted with the researchers and audio recordings and field notes were reviewed by the evaluation team.

5.2.2 Data Analysis and Presentation of Findings

Researchers maintained detailed notes, both during and after the IDI/FGD. Field notes sketched during the data collection process captured contextual factors, observations, non-verbal responses and learnings. Following the field work, transcription of the recorded audios was undertaken. In case of any difficulty in translation of specific words or phrases (e.g. the regional dialect for Ei Mindspark field), the partner field team was requested for support.

Coding was performed using a pre-defined coding framework developed in collaboration with the CSF team. Under the themes of participant profile, onboarding, engagement and retention, findings from each participant in each stakeholder category was coded into an Excel sheet. Findings were then synthesised to identify common patterns and outliers in the data. The insights were also corroborated across stakeholders. For example, it was found that all children and parents could recall the mascot from Chimple. They expressed positive sentiments towards the same, suggesting that it made learning for the user enjoyable and enriching. This was corroborated by the teachers who reported that children often mentioned the mascot in class and copied its actions.

The developed analysis was then understood in terms of processes and outcomes surrounding two major sections of interaction that the EdTech model initiates – acquisition and onboarding and engagement and retention. Insights for each theme were distilled into facilitators and barriers for the model. For example, Leader Mothers in the Pratham model reported that the mothers were highly encouraged by written appreciation provided by teachers on the WhatsApp group when they posted videos of their children completing activities. This was understood as public appreciation acting as a facilitator of engagement.

5.3 Description of Partner Models

5.3.1 ThinkZone

ThinkZone engages parents to drive foundational learning at home via government push and social pull

Product overview

- **Subject areas:** Math and Language
- **Languages:** Odia
- **Grades:** 1, 2, 3, 4 and 5

Theory of Change

Engage the Parent: 4 Learning Activities per week (2 Language & 2 Math)

Feature Phone	Smartphone
1 Weekly automated **IVRS calls with pre-recording description of learning activities**	**1:1 WhatsApp bot to share learning activities** and engage parents in chat flows for additional learning content
+	+
2 **Weekly SMS** with summary of learning activities	**Parent-teacher WhatsApp groups** (created by school teachers) for nudging and rewards or appreciation
+	+

3 **Toll free number:** Parents can call in to speak with ThinkZone and resolve doubts

4 **Bi-monthly live call from volunteers:** Accountability check for activity completion with parents

Device agnostic robust monitoring and feedback loop

5.3.2 Chimple

Chimple, a pedagogically-sound gamified at-home learning solution engages children through a playful learning experience to practice foundational skills at home

Product overview

- **Subject areas:** Math and Language
- **Existing evidence:** Finalist for the Global Learning XPRIZE. Showed ~17% & ~18.2% gains for literacy & numeracy in Tanzania; showed 0.25 SD improvement in Math for Grade 1 & 2 and 0.24 SD improvement in English for Grade 2 via an RCT in India
- **Languages:** English, Hindi, Kannada, Urdu, Marathi
- **Grades:** 1 and 2

Theory of Change

Engage the child	Involve the learning agents
A game-based approach to learning: Engaging games mapped to a curriculum-aligned learning journey for children aged 3 to 8 years	In-app **parent and teacher consoles** to drive usage and engagement

Create a monitoring & feedback loop

A strong data architecture to accurately **capture a user's learning journey,** a **WhatsApp layer** to nudge engagement and a **rewards and recognition** mechanism to enable sustained usage

5.3.3 Ei Mindspark

Mindspark is a Personalised Adaptive Learning (PAL) tool, with a gamified interface, that creates individualised learning journeys for each user to enable teaching at the right level (TaRL)

Product overview

- **Subject areas:** Math and Language
- **Existing evidence:** RCT study conducted with Karthik Muralidharan and JPAL. Showed 0.22 SD gains in Language, 0.36 SD gains in Math in Delhi; 0.24 SD gains in Math in Rajasthan.
- **Languages:** English, Kannada, Hindi, Gujarati, Marathi, Tamil, Telugu, Punjabi, Urdu, Odia
- **Grades:** 1, 2 and 3

Theory of Change

Personalised & Teaching at the Right Level (TaRL)

A personalised and gamified approach to learning: Mindspark is an adaptive, self-learning platform aimed at providing a unique learning path basis data on learners' learning gaps and difficulties

Community Engagement

Community programme to drive an at-home usage of Mindspark led by volunteers from the same community as the learners and their parents who:

a) Help onboard students onto Mindspark
b) Provide training on how to use the platform
c) Encourage learning via Mindspark
d) Provide a location for students to congregate after school to use Mindspark and experience peer/group learning

Outputs →

Learning Outcome Improvement via PAL & TaRL
+
Program layer to enable support for at-home usage of Mindspark

5.3.4 Pratham

Pratham has developed a WhatsApp bot for their NIPUN programme in Maharashtra to drive foundational learning at home via the government

Product overview

- **Subject areas:** Math and Language
- **Languages:** Marathi
- **Grades:** Grade 1 readiness, Grade 1, 2 and 3

Theory of Change

Content creations: Pratham's central content team prepares weekly "Idea Videos"

Distribution: Pratham's programme team shares Idea Videos on the state level group

Cascade: From there, each representative manually forwards or cascades Idea Videos down to the cluster level:

State → Division → District → Block → Cluster

WhatsApp Bot: Added to cluster level groups to
- Automate content dissemination
- Track engagement of Leader Mothers

At the cluster level, Leader Mothers are expected to:
- Forward Idea Videos to their last mile WhatsApp groups with Other Mothers
- Conduct weekly offline meetings with their mother group

All mothers (Leader & Other Mothers)

Attend offline mother group meetings and watch Idea Videos + Conduct Idea Video activities with their child at home

5.3.5 Rocket Learning

Rocket Learning, a WhatsApp-first approach to drive foundational learning at home; via government push and social pull

Product overview

- **Subject areas**: Math and Language
- **Existing evidence:** (i) External study of RL by Vidhi Centre have shown a doubling of time spent on learning by parents (ii) Internal study by RL M&E in partnership with Harvard researchers has shown increase in learning outcomes
- **Languages:** Hindi and Marathi
- **Grades:** ECE, and Grades 1, 2, and 3

Theory of Change

Inputs	Outputs	Outcomes
Parent-teacher messaging groups (created by government teachers or officials) + **Weekly activities and worksheets sent to parents and children** which are aligned to the curriculum + **Social pull with aspiration and validation** driven through personalised nudging and rewards or incentives	**Low-income parents have AIM: Aspiration, Information and Motivation** and measurement to support learning at-home + **Parents conduct regular learning activities** with children at home and **stay engaged** with the school system	**Parental or family support** leads to improvement in child's skills, abilities and learning outcomes + **Long-term changes in parental knowledge, attitude and confidence** in learning at-home + **Spillover effects** on child learning and parent's participation in school

5.3.6 Top Parent

Top Parent, a parent and child facing solution to help parents engage in their child's learning

Product overview

- **Subject areas:** Math and Language
- **Languages:** Hindi and Marathi
- **Grades**: 1, 2, and 3

Theory of Change

1. Include NCERT mapped multimedia resources for children and videos for parents	2. Grounded in accelerated learning framework pedagogy	3. Drive engagement through customised nudges and gamification
• Multimedia content in the form of quizzes, videos and gamified worksheets to engage children and help them learn • Parent-facing content in the form of videos to help support their child	• Computerised pre-test mapped to age and competency • Live streaming classes support and scaffold learning • Continuous assessment tracks performance and generates report cards	• Drive and sustain engagement basis real time data fed to generate customised nudges for parents • Keeps parents engaged through gamified quizzes, rewards and leaderboards • AI chatbot integrated with Jugalbandi to respond to users

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Match Coloured Objects
खेल की तरह
खेलना जारी


Home
Subjects
English
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c
Alphabet a - f
English
b
b
Alphabet a - f
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