

# **Enabling Adults with Less Education to support their child's education through hyperlocal educational videos**

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# The process

1

## Secondary Research

- ✓ Literature Review
- ✓ Research Gaps
- ✓ Motivation
- ✓ Research Questions

2

## User Studies

- ✓ Interviews
- ✓ User journey
- ✓ Persona & Scenarios

3

## Analysis

- ✓ Thematic analysis
- ✓ Artefact analysis
- ✓ Generate codes and themes

4

## Intervention Design(s)

- ✓ Design principles
- ✓ Learning theories
- ✓ Film making theories

5

## Deployment & analysis

- ✓ Pilot studies
- ✓ Longitudinal studies
- ✓ Critical evaluation

6

## Validation and deliverables

- ✓ Framework, theories
- ✓ Design guidelines
- ✓ Future scope

7

## Solution Design

- ✓ Product design
- ✓ Testing
- ✓ Market launch

# Adults with less education (ALEs)



~600 million

Adults with education  
<10<sup>th</sup> standard

248  
million

Illiterate adults

+188  
million

Adults studied till primary  
school (5<sup>th</sup> Std)

+89  
million

Adults studied till middle school  
(8<sup>th</sup> Std)

+81  
million

Adults studied till middle school  
(10<sup>th</sup> Std)

# School education in India (ASER 2018)



- ▲ School enrolment
- ▼ Student performance

98% of children of the age 8, and 87% of children of the age 15-16 are enrolled in schools in rural India.

Only 44% of standard 5 children and only 69% of standard 8 children in government schools could read standard II level text.  
In 2008, the corresponding numbers were 53% and 83% respectively

# Literature Review

Parental engagement in their child's education is one of the important predictors of the child's academic success.



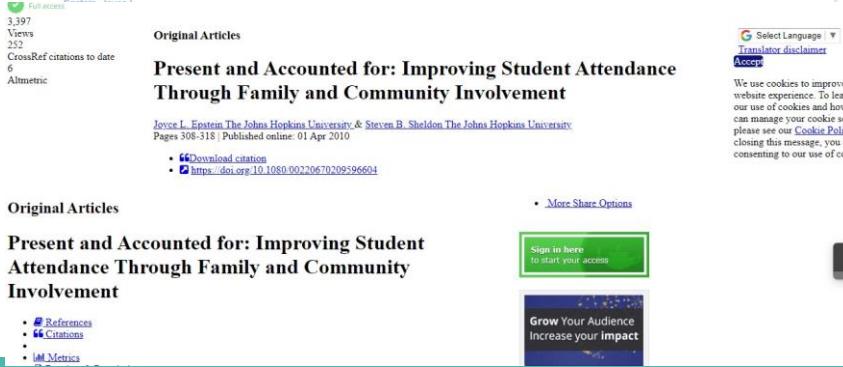
# Parental engagement in developed economies



This screenshot shows a journal article from the Informit platform. The article is titled "Evaluating the effectiveness of the Home Interaction Program for Parents and Youngsters (HIPPY)" by Tony Barnett, Fatoumata Diallo Roost, and Juliet McEachran. It is part of the "Family Matters" issue, published on 01 January 2012. The page includes a search bar, navigation links for "This Issue" and "Search Issue", and a "Login | Register" button. Below the article summary, there are links for "PDF/EPUB", "Export Citations", "Add to Favourite", "Tools", and "Share".



This screenshot shows a search result from the APA PsycNet database. The query is "Effects on student achievement of teachers' practices of parent involvement." The result is a chapter titled "Present and Accounted for: Improving Student Attendance Through Family and Community Involvement" by Joyce L. Epstein and Steven B. Sheldon. The page includes a "SEARCH" and "BROWSE" bar, a "Recent Searches" and "My List" section, and a "My PsycNet" link. It also shows the "Database: APA PsycNet" and "Chapter" information. There are links for "EXPORT", "Add To My List", and "Share".



This screenshot shows a research article from the JSTOR platform. The article is titled "Present and Accounted for: Improving Student Attendance Through Family and Community Involvement" by Joyce L. Epstein and Steven B. Sheldon. It has 3,397 views and 252 CrossRef citations to date. The page includes a "Full access" link, a "Original Articles" section, and a "More Share Options" button. It also features a "Sign in here to start your access" button and a "PDF Help" button. The article summary includes the authors' names and the publication details: "Pages 308-318 | Published online: 01 April 2010". There are also "Download citation" and "DOI" links.



Improved academic performance  
Reduction in school dropout  
Improved attendance  
Better student engagement  
Improved social and adaptive skills

# Parental engagement in Indian Context

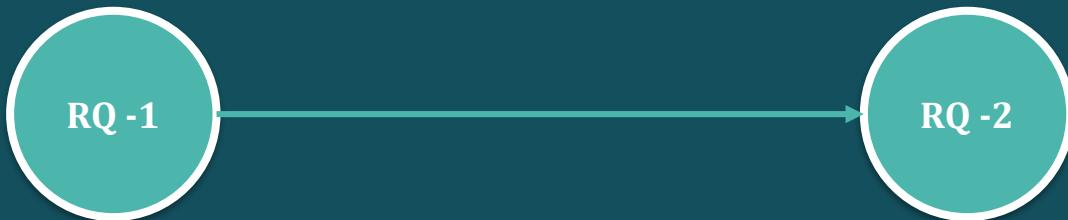
Least studied

Poorly implemented in the school

and at home



# Research questions



**What are the barriers and opportunities to engage ALE parents in their children's education at home?**

**How could a video-based intervention facilitate engagement of ALE parents in their children's education?**

# Study design



## User studies

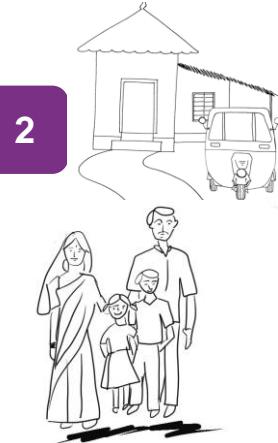
- Interviewed 113 ALE Parents
- 3 home visits
- 1 child care center visit in Maharashtra and Odisha

# Scenario

1



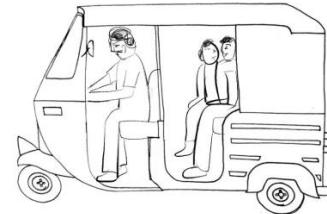
2



3



4



5



Mahesh is a father of two children and he drives an auto for earning.

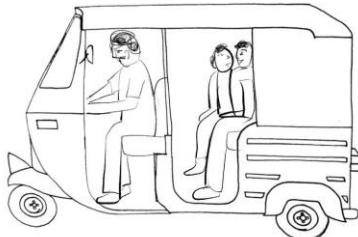
Both Mahesh and his wife are 6<sup>th</sup> standard educated and send their children to a govt. school

Mahesh goes to work at 6 am and comes back at 9 pm

After coming back home Mahesh spends a happy time with his family

Mahesh brings pens and other study materials for his children

6



Mahesh sometimes discusses about how to guide children with his passengers

Contd....

# Scenario

7



8



9



10



Mahesh is worried about his elder child who failed in the last exam in spite of tuition classes. Now Mahesh wants to involve in his studies but he is least confident.

A child needs personal attention and feedback

Revision is also important

Mahesh now gets educational video content and activity guidance on the phone.

He shared such videos with his wife.

Mahesh's wife now could able to guide her son in Mahesh's absence and child's performance is getting better.

# User studies – Findings from affinity mapping

Parents have less education and lower self efficacy

Academic discussion is not a common practice

English becomes a barrier, since parents don't know English.

Parents' need additional help to ask questions

Parents are busy with livelihoods

# Study design



## Interventional study

- Designed 4 hyperlocal educational video prototypes
- Deployed with 12 parents for 2 weeks

# Interventional Study

## METHOD



LAPMEMS  
School, Pune



Action Research  
methodology



4 educational  
video prototypes



Worked with the  
**6<sup>th</sup> Grade Maths  
teacher**

## INTERVENTION DESIGN



4 educational video prototypes  
**“explainer video”**  
**“guider video”**  
**“discussion video”**  
**“homework video”**



Summarise concepts and/or gave  
action items



Video made < 3 minutes



Less production support

## DEPLOYMENT



Videos were sent to 12 parents  
(Education<10th std., Age: 25-35, 4  
males and 8 females) for two weeks  
over WhatsApp

Videos were made on content taught  
in the morning class and sent to the  
parents in the afternoon, when  
children reach home from school

# Intervention Design

## 1. Explainer video:

The image is a horizontal collage of five photographs, each representing a different segment of the explainer video:

- Explainer Video**: A child is shown from the chest up, holding a yellow highlighter.
- Ice breaker (30s)**: A child's hands are shown writing in a notebook with a blue pen. The notebook has some handwritten text and small diagrams.
- Recap (30s)**: A child's hands are shown writing in a notebook with a blue pen. The notebook has some handwritten text and small diagrams.
- Concept (60s)**: A teal box with the text "+ इक्वेशन जोडणे +".
- Visualization (30s)**: A hand holding a pen over a drawing of a balance scale. The left pan is labeled  $4+4$  and the right pan is labeled  $4 \times 2$ .
- Representation (30s)**: A hand holding a pen over a whiteboard. The text "EQUATION कैसे लिखते हैं?" is written in green, along with the equation  $m + 8 = 16$ .



This video aims at **informing parents about lessons** taught in the Mathematics class.

The video covers a few key concepts related to equations so that they would feel **confident to discuss the topic** with their children.



### Hyper-local video

uses children's own notebooks, locally relevant examples and language

# Intervention Design

## 2. Guider video:



Guider Video

General Discussion

Focused Discussion

Checking Notebook

ऐसे आपके बच्चों के साथ होमवर्क कीजिए

Homework Planning



This video was made to **model a successful parent-child interaction** - with the aim of **building parent's belief** in these activities.



Video was shot with a parent and a child from the community.

# Intervention Design

## 3. Discussion video:

### Discussion Video



Pointers for discussion

1. Equation (इक्वेशन)  
म्हणजे काय ?

Discussion Questions

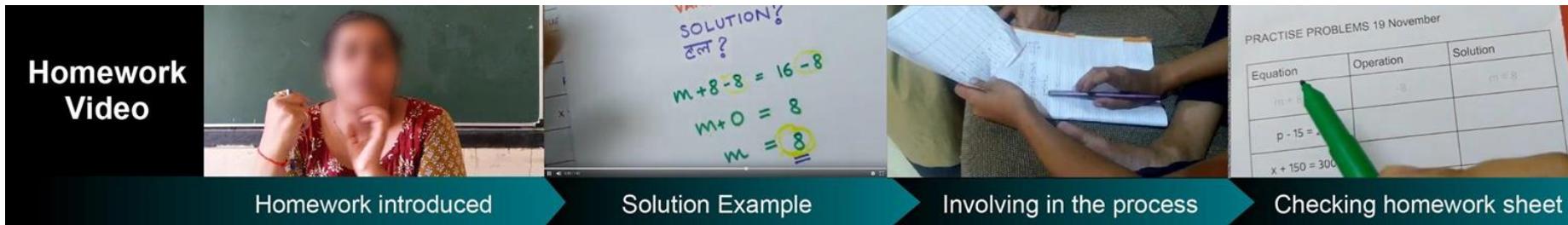


The discussion video included prompts for the parents to **discuss the specific topic** covered the same day in school.

The purpose of this video was to help parents **assess their child's understanding** and provide individual feedback.

# Intervention Design

## 4. Homework video:



In the homework video, the teacher **describes** the homework that was given on that particular day.

She instructs the parents on how they could get involved in **helping with homework** and **assessing it**.



The video was made to accompany a homework sheet

Video was shot with the teacher

# Interventional Study - Deployment



**Explainer Video**

Explains the concept  
Informs parents about what's taught in the class  
Improves parent's self-efficacy

Discussion (Recap) 30s  
Focused Discussion 30s  
Concept (Concept) 60s  
Checking Notebook 30s  
Visualization (Visualization) 30s



**Guider Video**

Show parents how activities like discussions and supervision can be conducted with children  
What questions to ask and plan for homework

Discussion  
Focused Discussion  
Checking Notebook  
Homework Planning



**Discussion Video**

मोबाइल होमवर्क  
मेरी जानकारी के साथ होमवर्क कीटिए

Pointers for discussion  
Discussion Questions

Equation (प्रश्नावली) पार्टर लेवल



**Homework Video**

Instruct parents on how homework is solved and checked  
Children benefit from an adult helping their work

Work introduced  
Solution Example  
Involving in the process  
Checking homework sheet

1. Explainer video

2. Guider video

3. Discussion video

4. Homework video

## DEPLOYMENT



2W 

Videos were sent to 12 parents  
(Education<10th std., Age: 25-35, 4 males and 8 females) for two weeks over WhatsApp



Followed up with the parents on days 3, 8 and 15 after the deployment of the first video



Conducted semi-structured interview in the end

## Interventional Study – Questions for parents

Did you watch the video shared yesterday?

Do you remember the example to explain equations?

Did your child complete all her homework questions?

Which video did you like the most?

Did you notice the parent help the child in the video?

## Interventional Study – Findings from affinity mapping

Most parents did not watch the video

Parents became more aware and did check the child's progress

Marathi language in the video was much appreciated

Parents found the discussion video to be most useful

Children were not positive about parent led activities

## Key takeaways

**The problem is complex and hard.**

**Parents need to know why their engagement matters in their children's education. Conducting workshops and discussion sessions would help.**

**Academic engagement of parents is not common. Interventions need to focus on building more on that.**

**Hyperlocal videos have a great potential. However, ALE parents require consistent motivation and support to get engaged.**

# Product overview



# App Development

## Design

Wireframes Done !!



## Development

Ongoing !!

Android, **Flutter** & Native App Dev

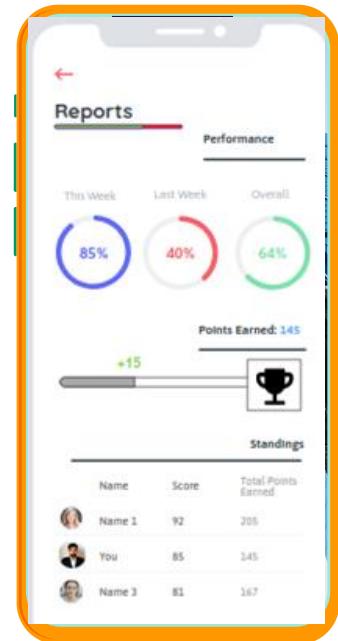
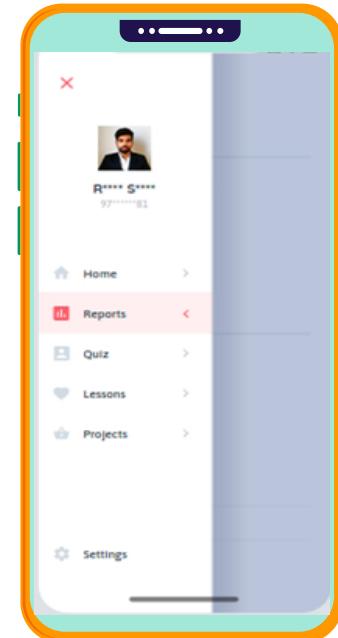


## Key Features

**Rewards** and Recognition

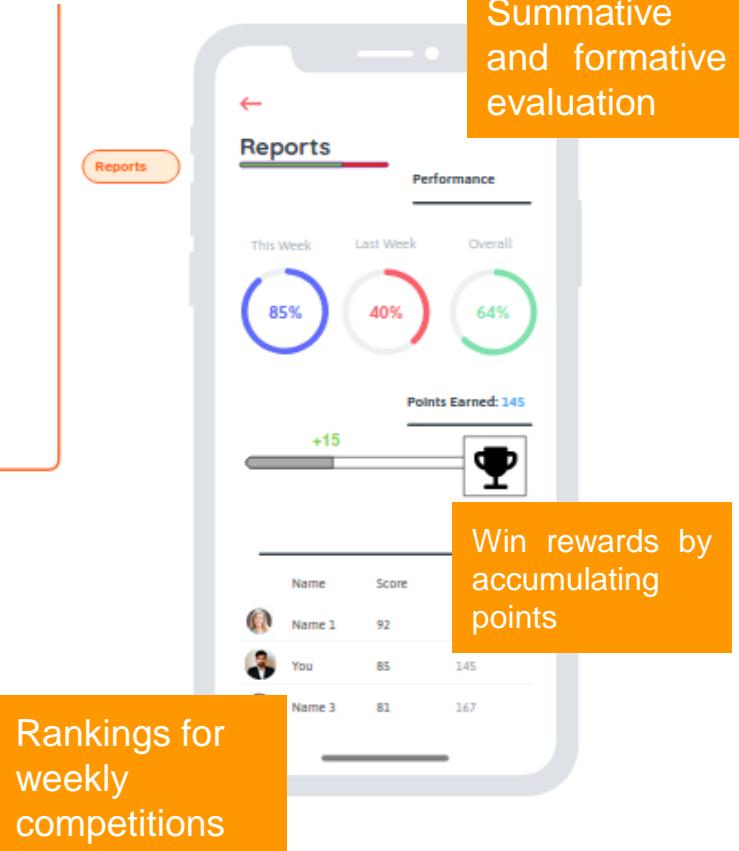
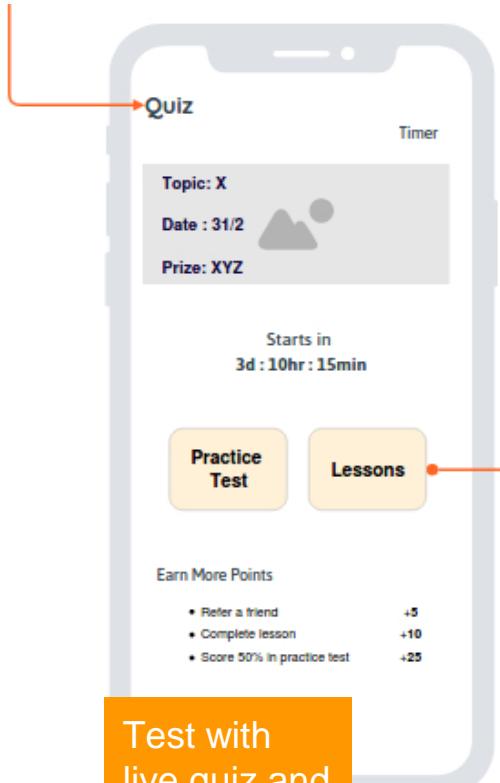
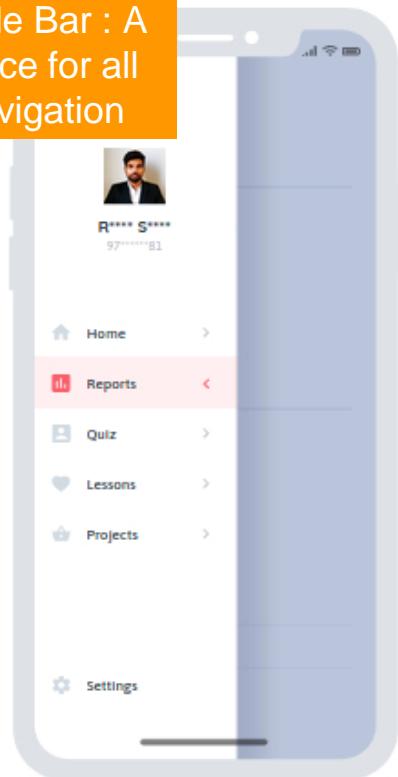
Formative assessment by Parents

AI based recommendation



# Screens (work in progress)

Side Bar : A place for all Navigation



# Thank You

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