

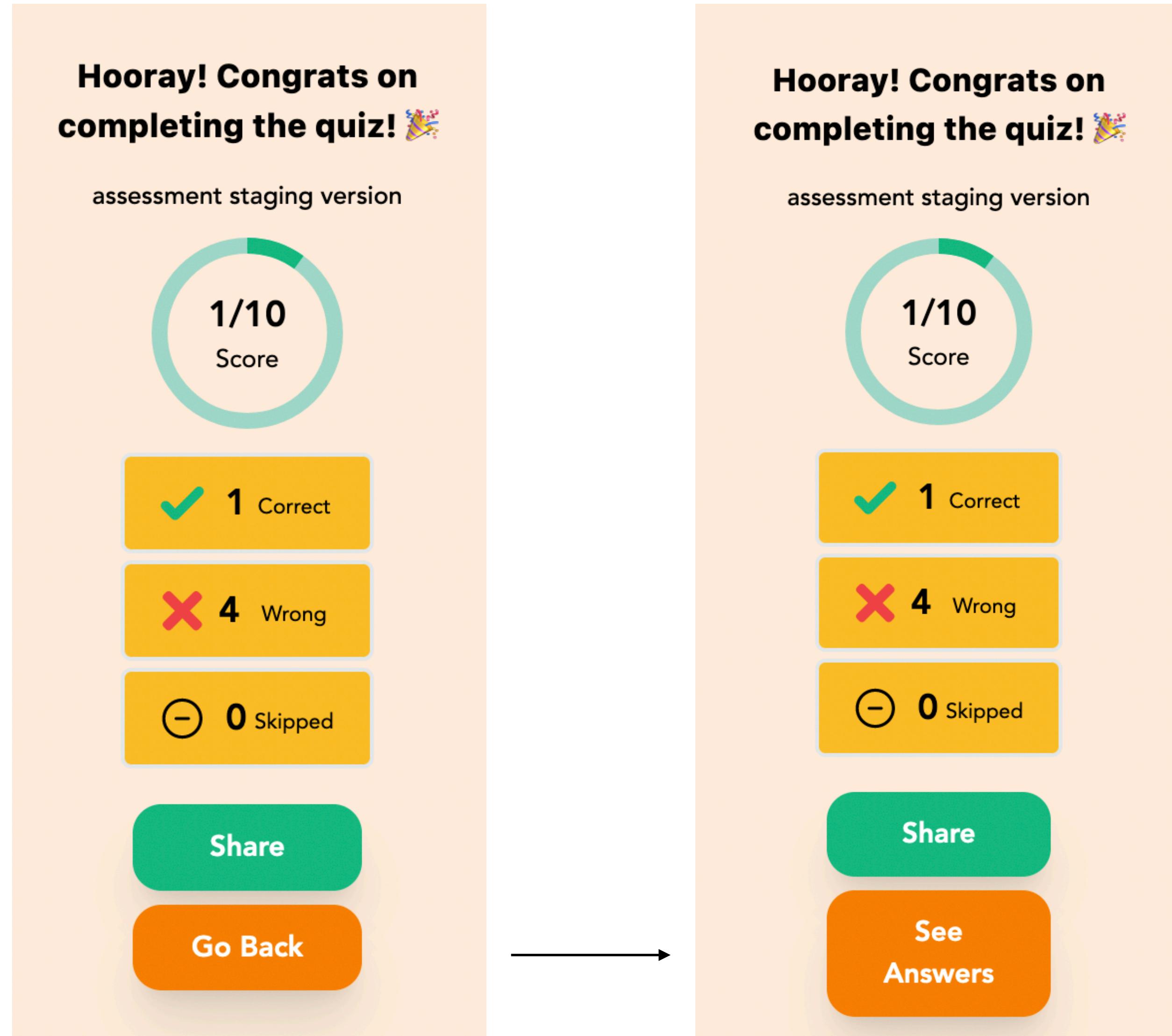
Avanti Fellows

Quiz Engine, Glific Use-cases



अवन्ती
AVANTI FELLOWS

**7th July 2022 @ Tech4Dev Sprint, Garudmachi
suryateja@avantifellows.org**



My only contribution in production so far :p

AF Mission

Help students lift themselves & their families out of poverty in a *single generation* by helping them qualify to *quality professional undergraduate courses* & develop the skills needed to build successful careers

Numbers...

~150 employees

~27k students offline

~2M online learners

~1.5k qualifying into top tier colleges each year

Programs

JNVs, ENABLE, NEEV, Girls Leadership Program (GLP)

JNVs

- Residential Schools
- In-person tutoring
- Smart top-tier students
- Class 11 & 12

ENABLE

- After-school hours
- Free online tutoring
- Testprep: Class 11 & 12

NEEV

- After-school hours
- Free online tutoring
- Foundation: Class 9 & 10

NEEV Program

Math+Science Remediation for Class 9 & 10

Experimentally, we found **three hours** of weekly learning to work well

Delivery: engaging live class by a master teacher (Google Meet)

~40 students per class

Problem?: **Cost! INR 6k/child/year**

Can't scale to state/national level



NEEV Program

Math+Science Remediation for Class 9 & 10

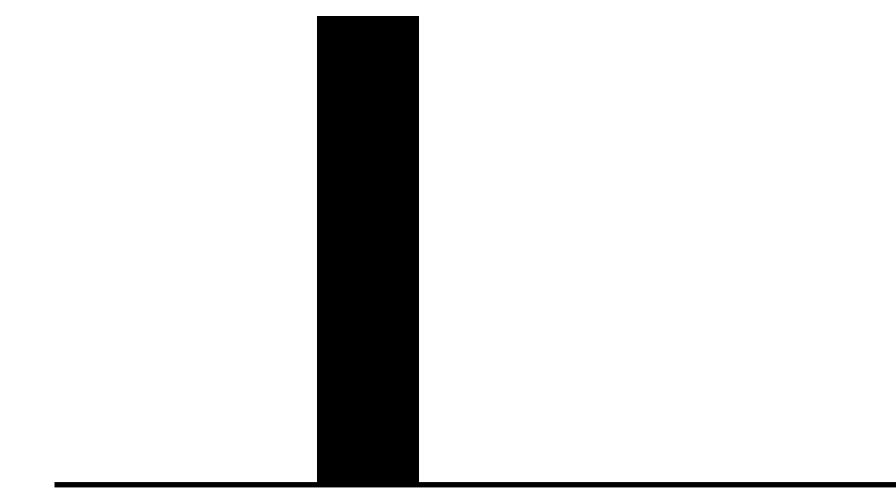
Solutions?

- Increase the no. of students per teacher?
=> “YouTube video hi dekh leta hu”

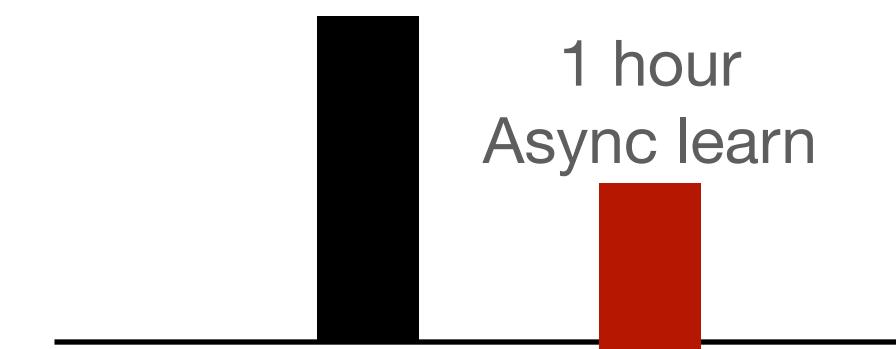
- Reduce live class time?

We bet on ***increasing async learning time***
- plios, revising recorded videos, homework,
quizzes, etc (nudge via WhatsApp **glific**)

3 hours
Live-class

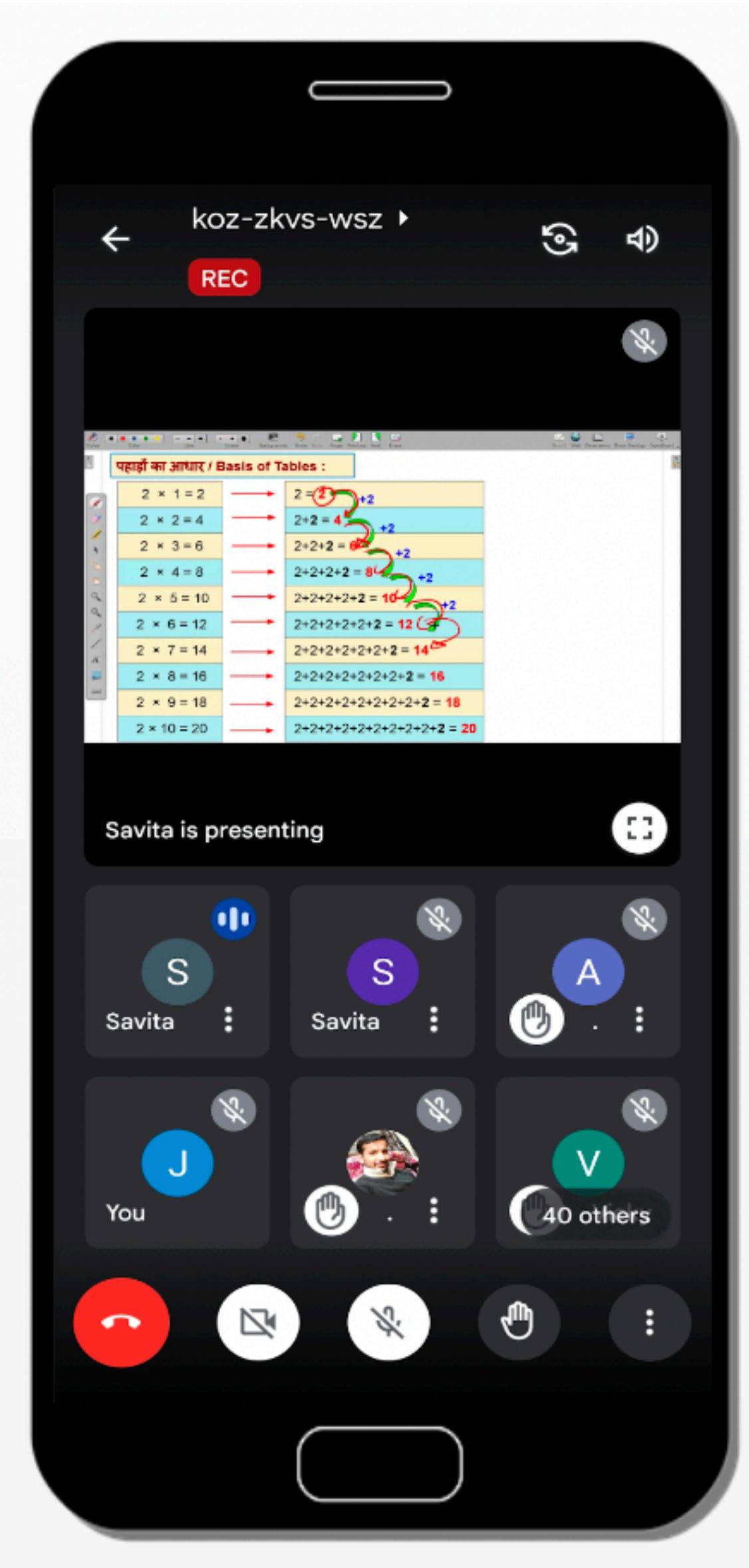


2.5 hours
Live-class

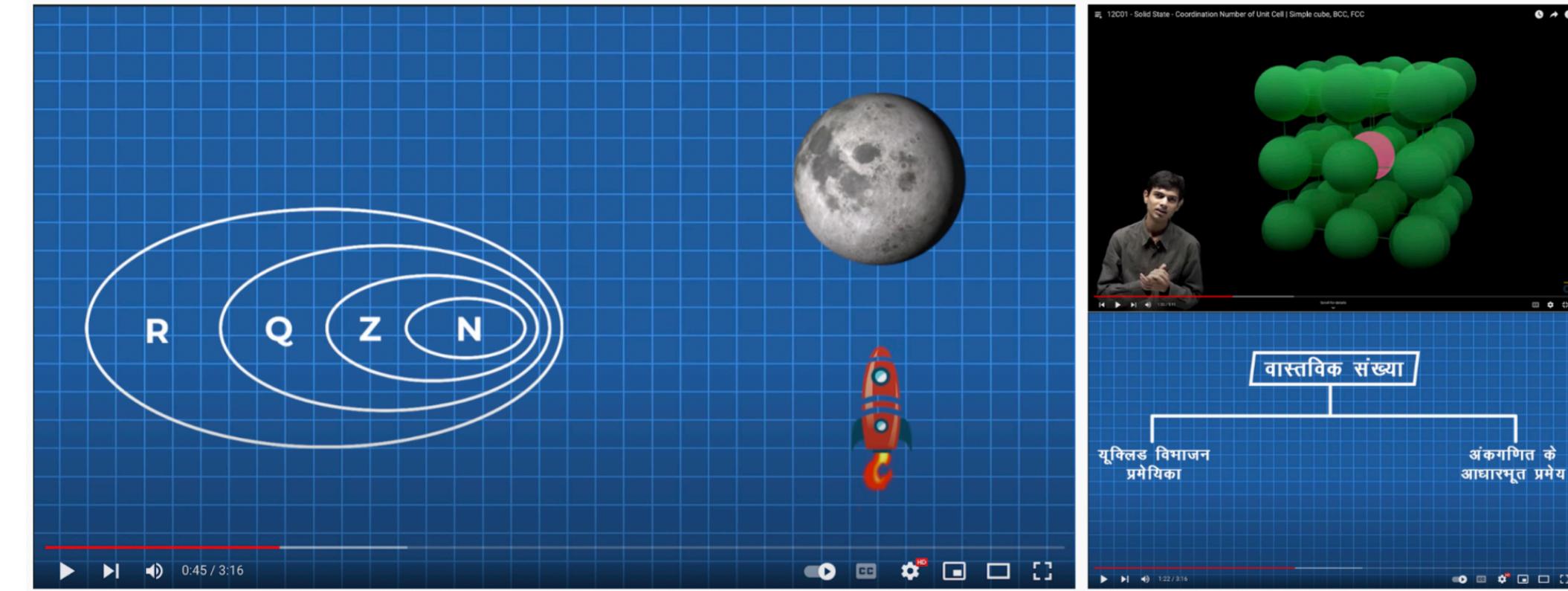


Product Walkthrough

Live classes



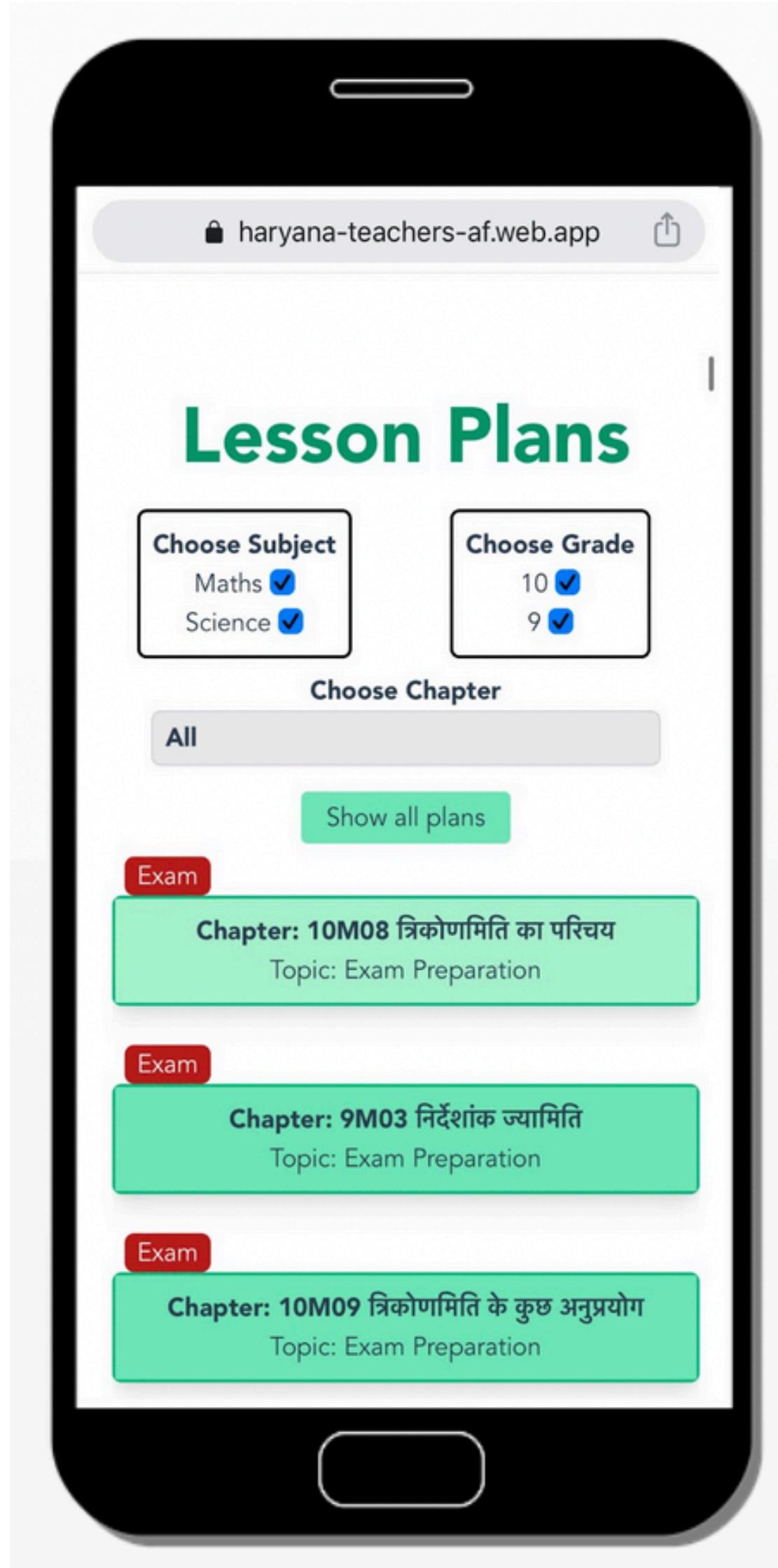
Recorded classes + additional content in English, Hindi



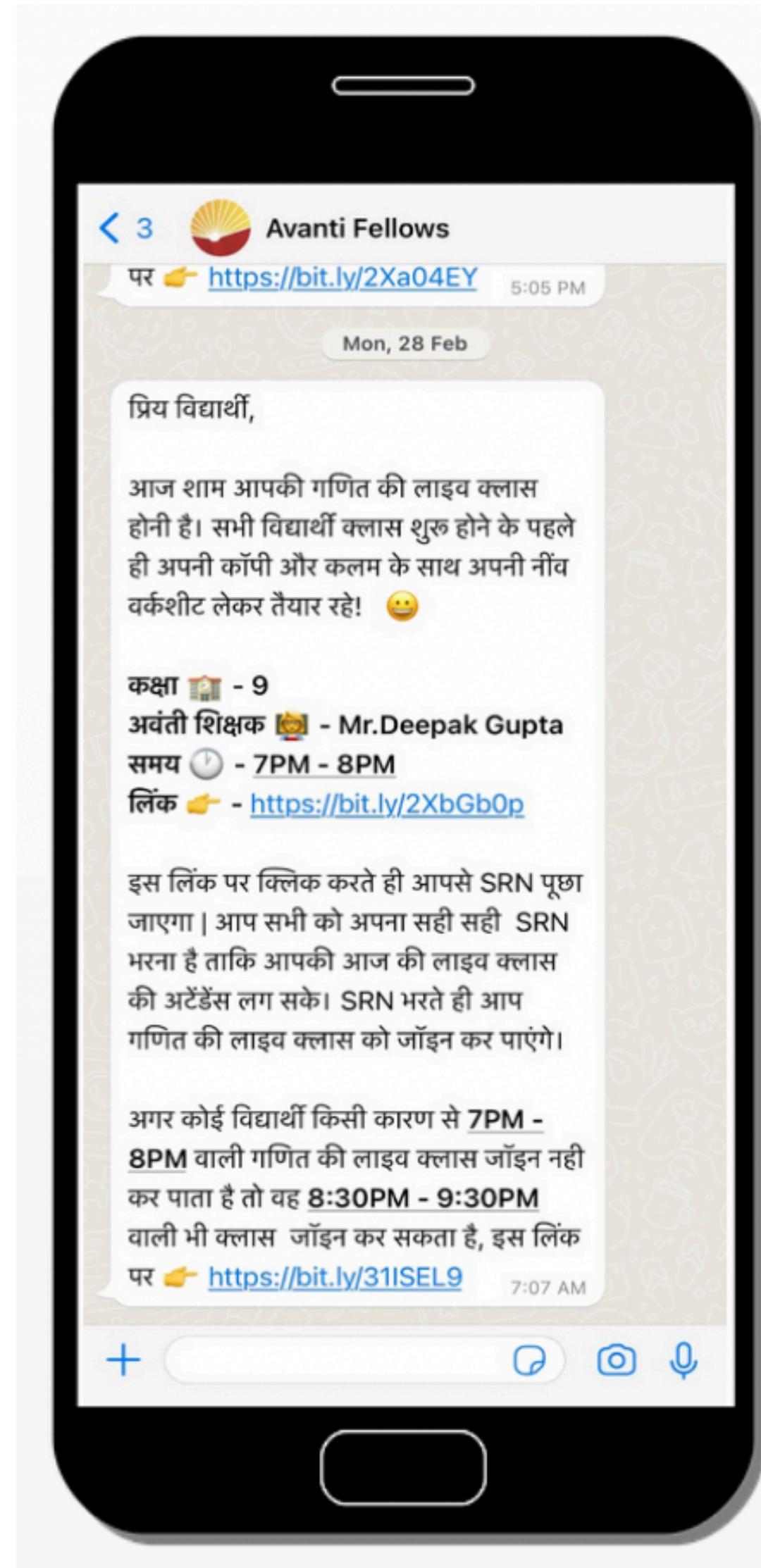
Question Bank (~1.5 lakh) → Quizzes, worksheets

Note - The recommended order of teaching is: A, B, C, G, D, E, F

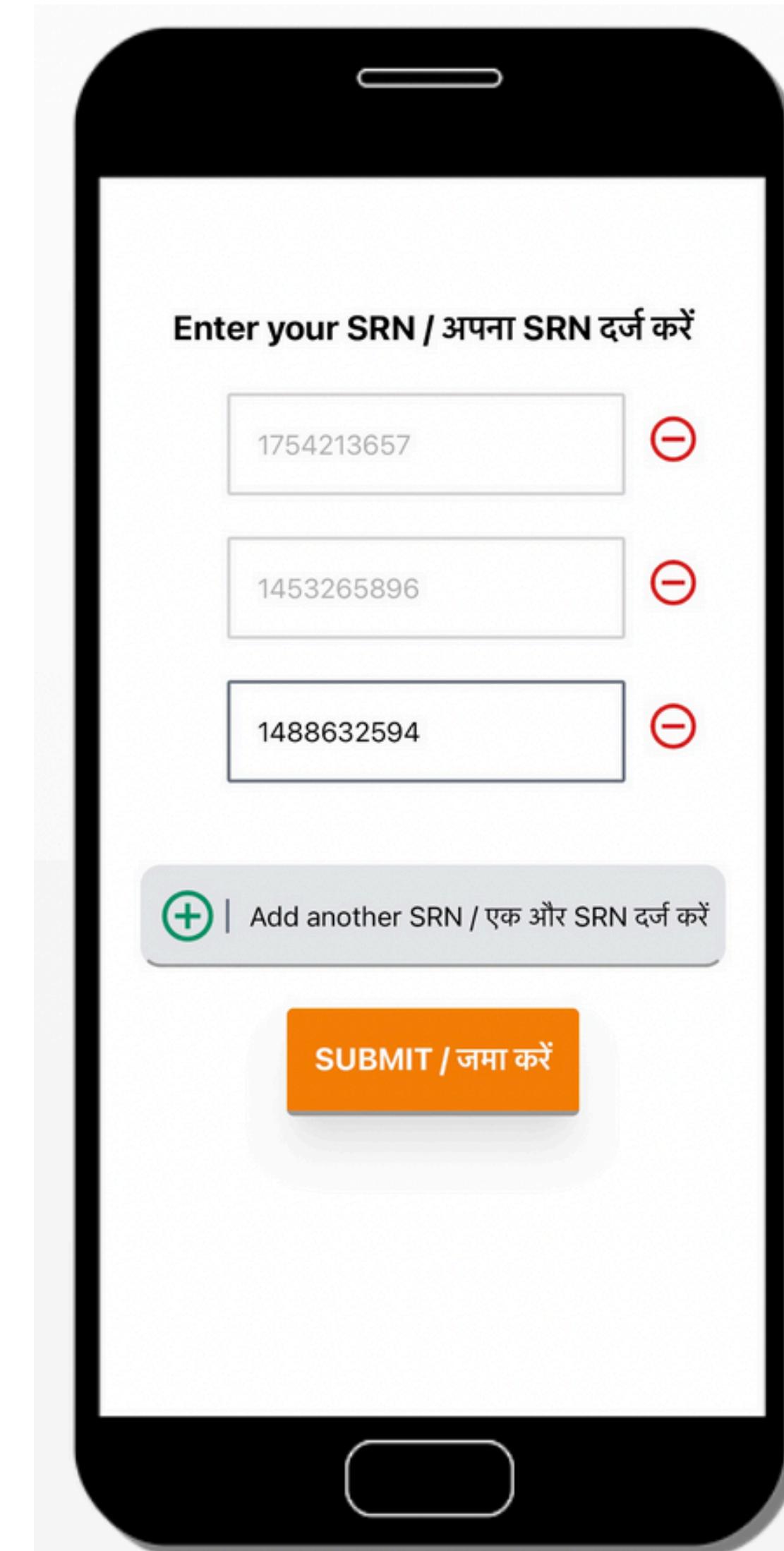
Lesson Plan Webapp



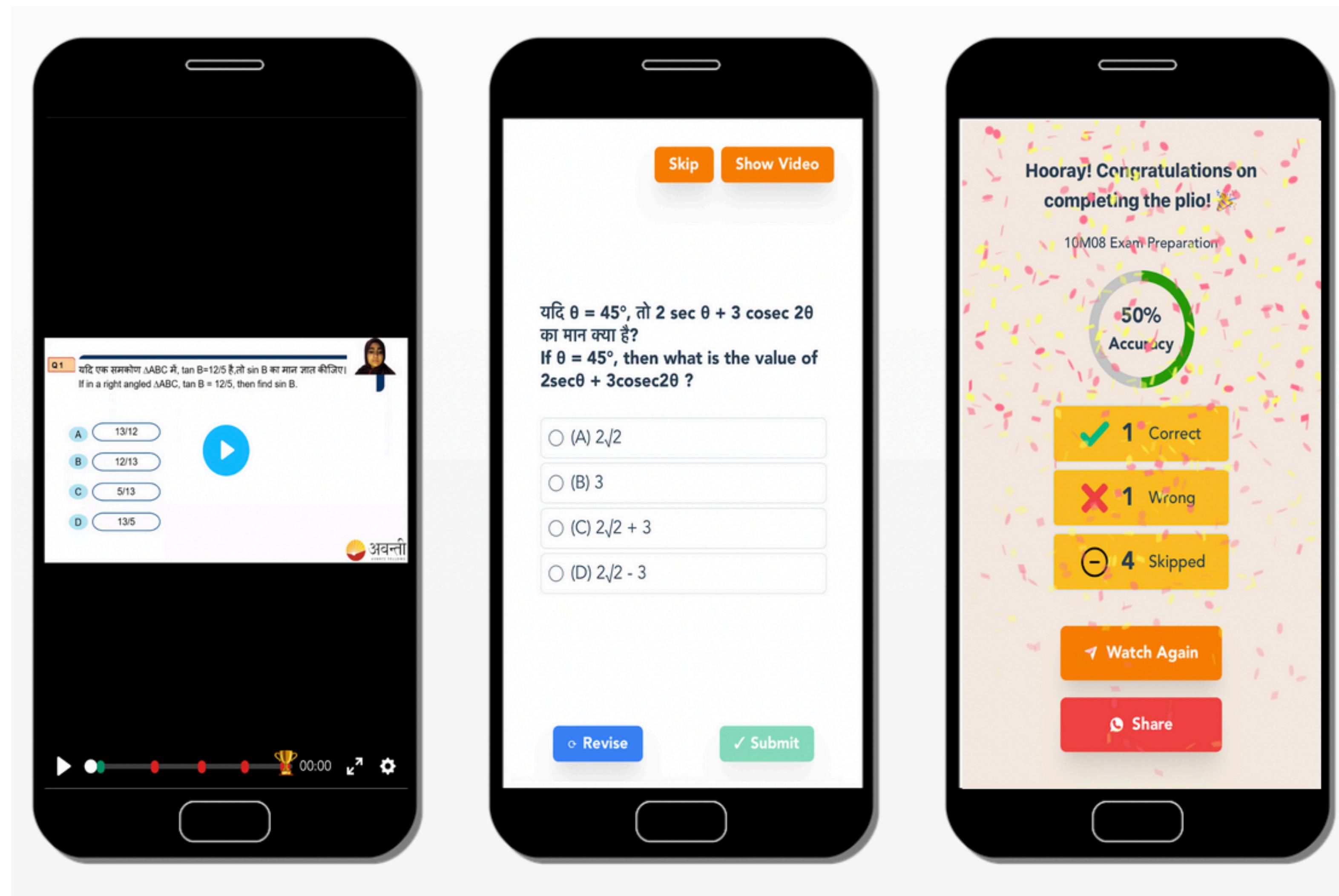
Whatsapp



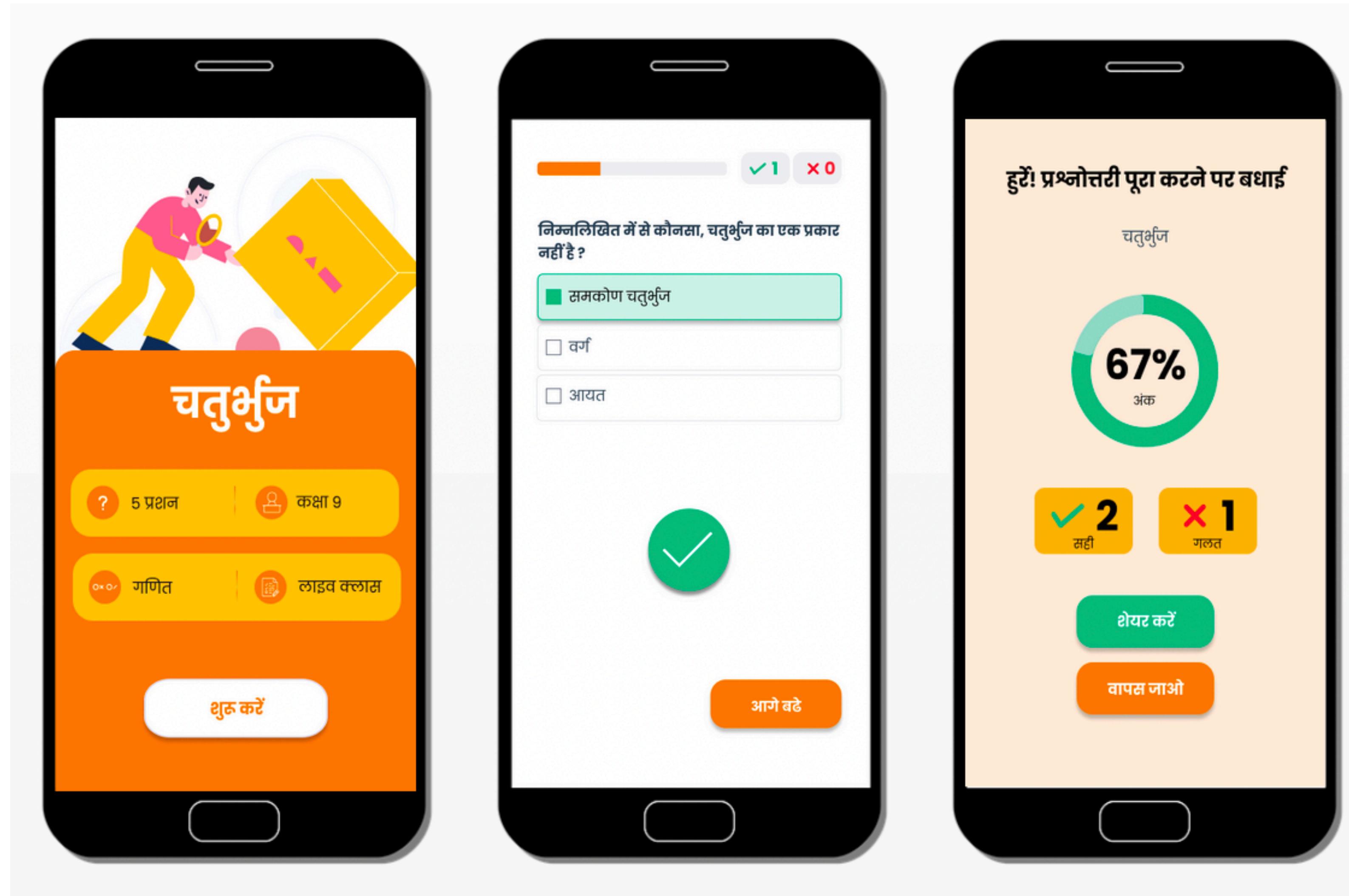
Authentication Layer



Interactive Video Lessons | Plio



Quiz Engine - homework, assessments



Quiz Engine

Motivation?

- Exam Plios, Homework Plios didn't seem to work that well —> “video nahi dekhna hai time bhot lagega”
- Assessments are a very important part of our intervention
- Good feedback to teachers, improve curriculum and teaching, etc.

Homework: [https://staging-quiz.avantifellows.org/quiz/62c689333c3357c57b9a425e?
userId=abcd&apiKey=6qOO8UdF1EGxLgzwlbQN](https://staging-quiz.avantifellows.org/quiz/62c689333c3357c57b9a425e?userId=abcd&apiKey=6qOO8UdF1EGxLgzwlbQN)

Assessment: [https://staging-quiz.avantifellows.org/quiz/62c689173c3357c57b9a4258?
userId=abcd&apiKey=6qOO8UdF1EGxLgzwlbQN](https://staging-quiz.avantifellows.org/quiz/62c689173c3357c57b9a4258?userId=abcd&apiKey=6qOO8UdF1EGxLgzwlbQN)

Quiz Engine

Alternatives?

Google Forms

- can't gamify
- no optional questions
- tough to clean/analyze data
- tough to connect with our question bank
- limit on number of rows
- doesn't look like NTA
- no optional questions
- tough to navigate across 180+ questions

The screenshot shows a quiz interface with two questions visible:

- Question 3: 248 (radio button options 1, 2, 3, 4)
- Question 4: 256 (radio button options 1, 2, 3, 4)

Below the questions are buttons for "SAVE & NEXT", "CLEAR", "SAVE & MARK FOR REVIEW" (highlighted in orange), and "MARK FOR REVIEW & NEXT". At the bottom are navigation buttons "<< BACK" and "NEXT >>" and a green "SUBMIT" button.

To the right of the interface is a legend and a grid of numbered boxes:

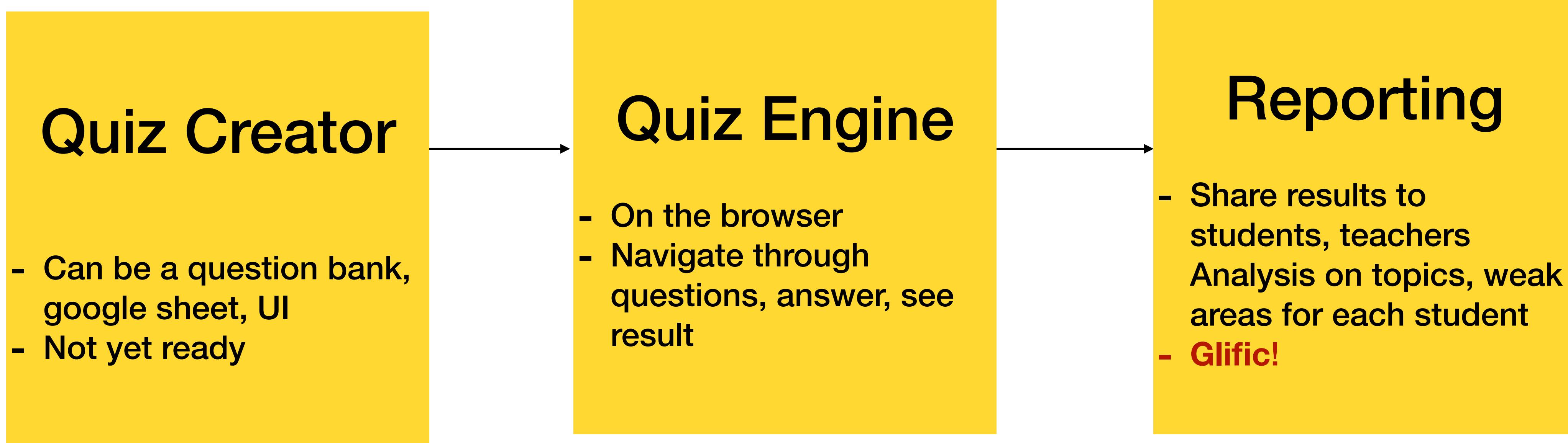
- Legend:
 - Not Visited (grey box)
 - Not Answered (orange box)
 - Answered (green box)
 - Marked for Review (purple box)
 - Answered & Marked for Review (will be considered for evaluation) (green box with a checkmark)
- Grid:

01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

NTA Web Application with ~20 sample papers

Quiz Engine

Open-source, most of the code is from Plio

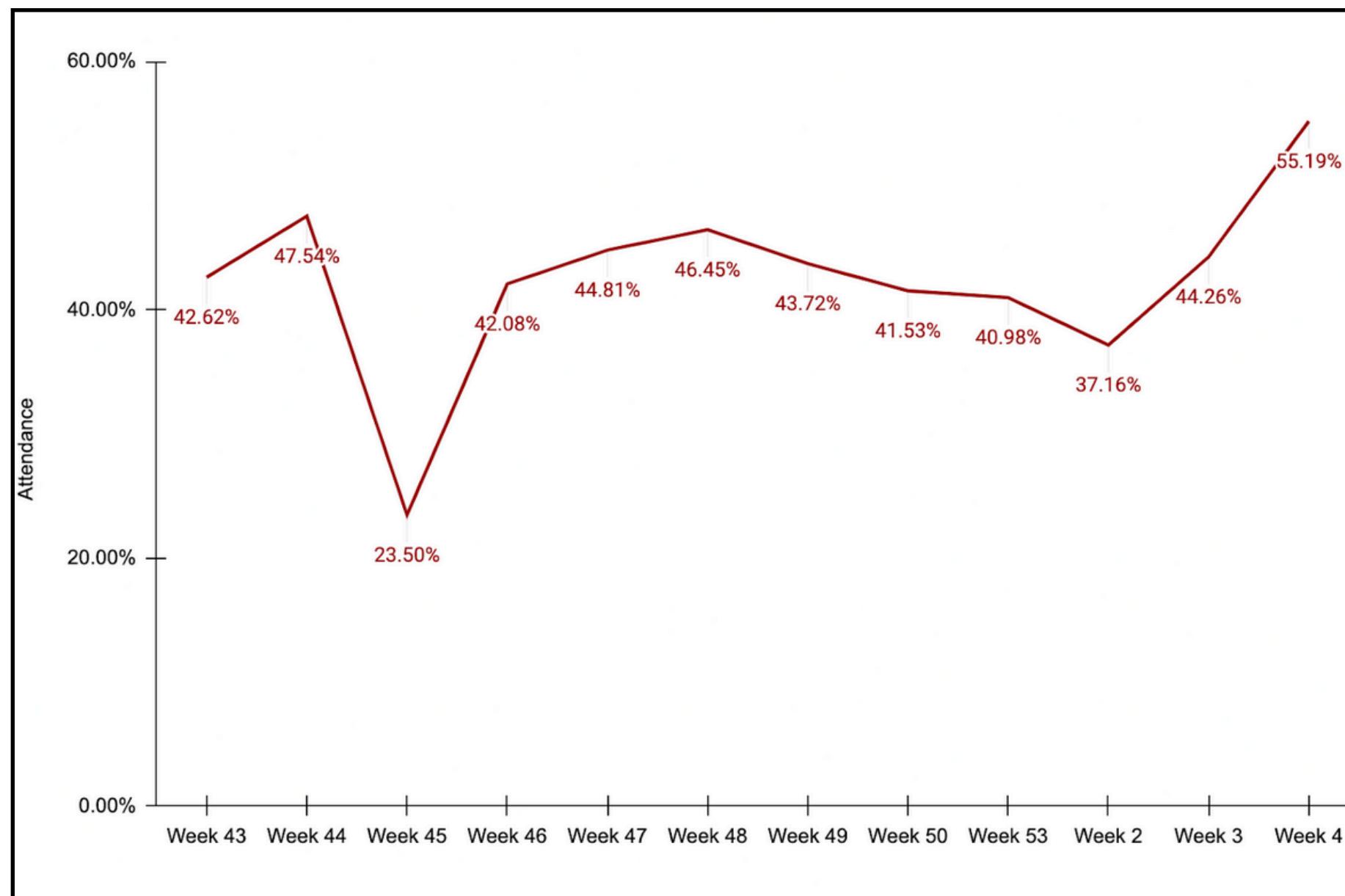


Glific Use-cases

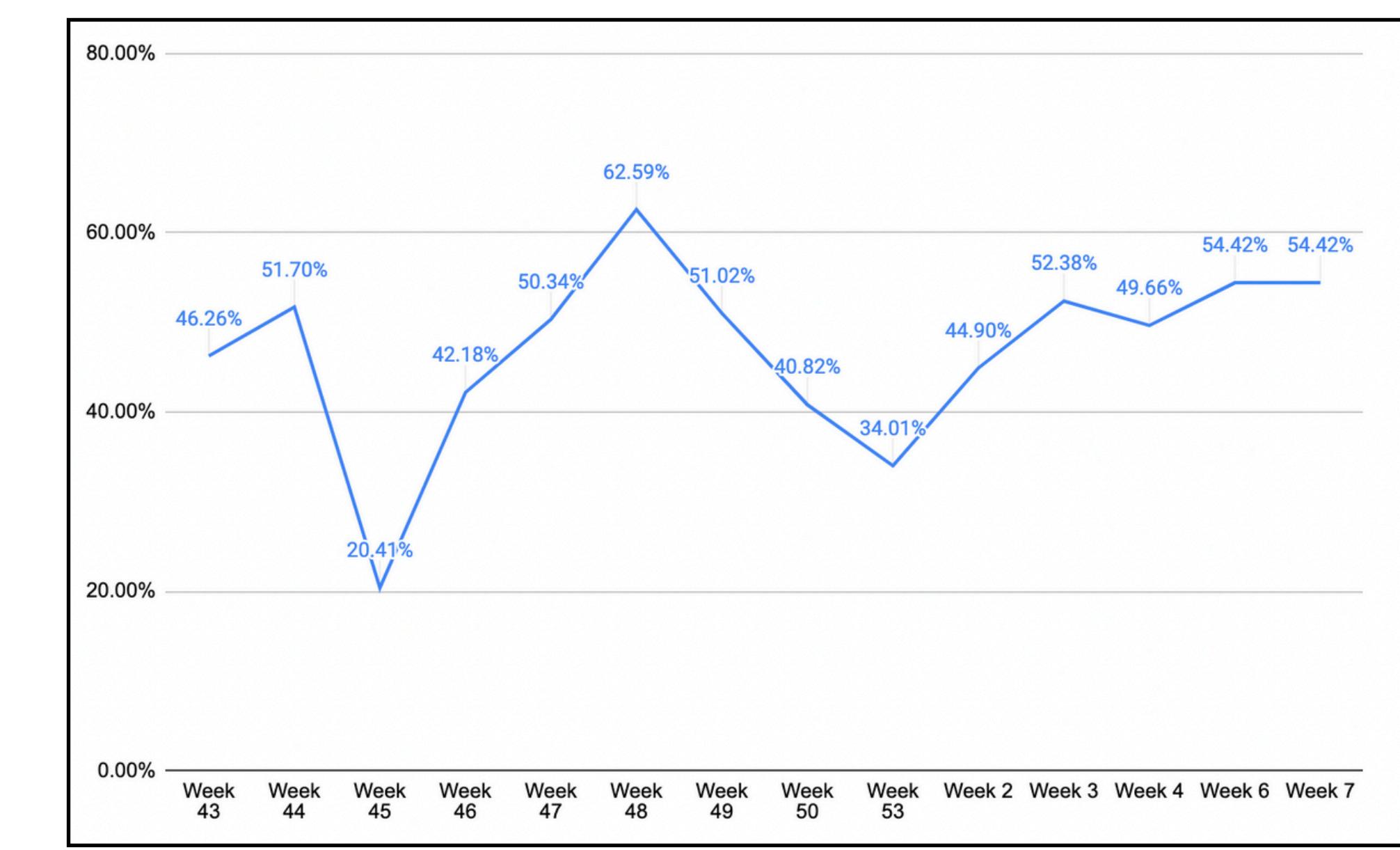
Glific Live-class experiments

Pilot Studies (Jan-Feb 2022)

Expt1: Test impact of nudges sent on WhatsApp on their live-class attendance (small sample)



Expt2: Test impact of nudges sent on WhatsApp on their live-class attendance (more schools)



Glific + AF

Ideas we plan to try out in near future

1) Send reports

- to teachers (how many students completed the quiz? Average time taken?)
- to students (which topics are you weak in?)

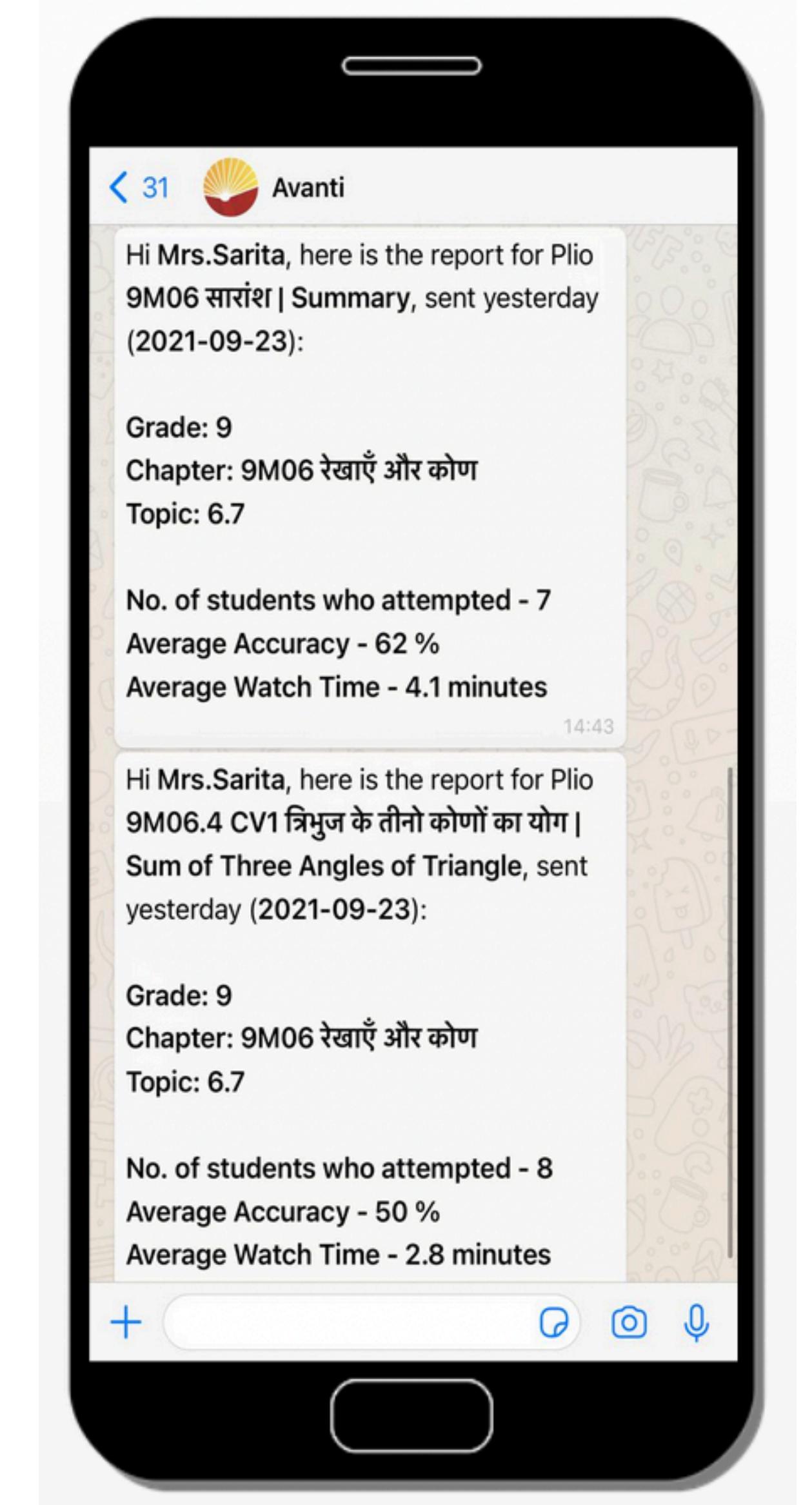
2) Send nudges

- please attend the class, here's the link

3) Send top-3 performers leaderboard *in a group chat*

4) Responding to queries (“circular motion ke questions chahiye”)

Goal is to reduce stress on operations team, increase async learning



Thank You