

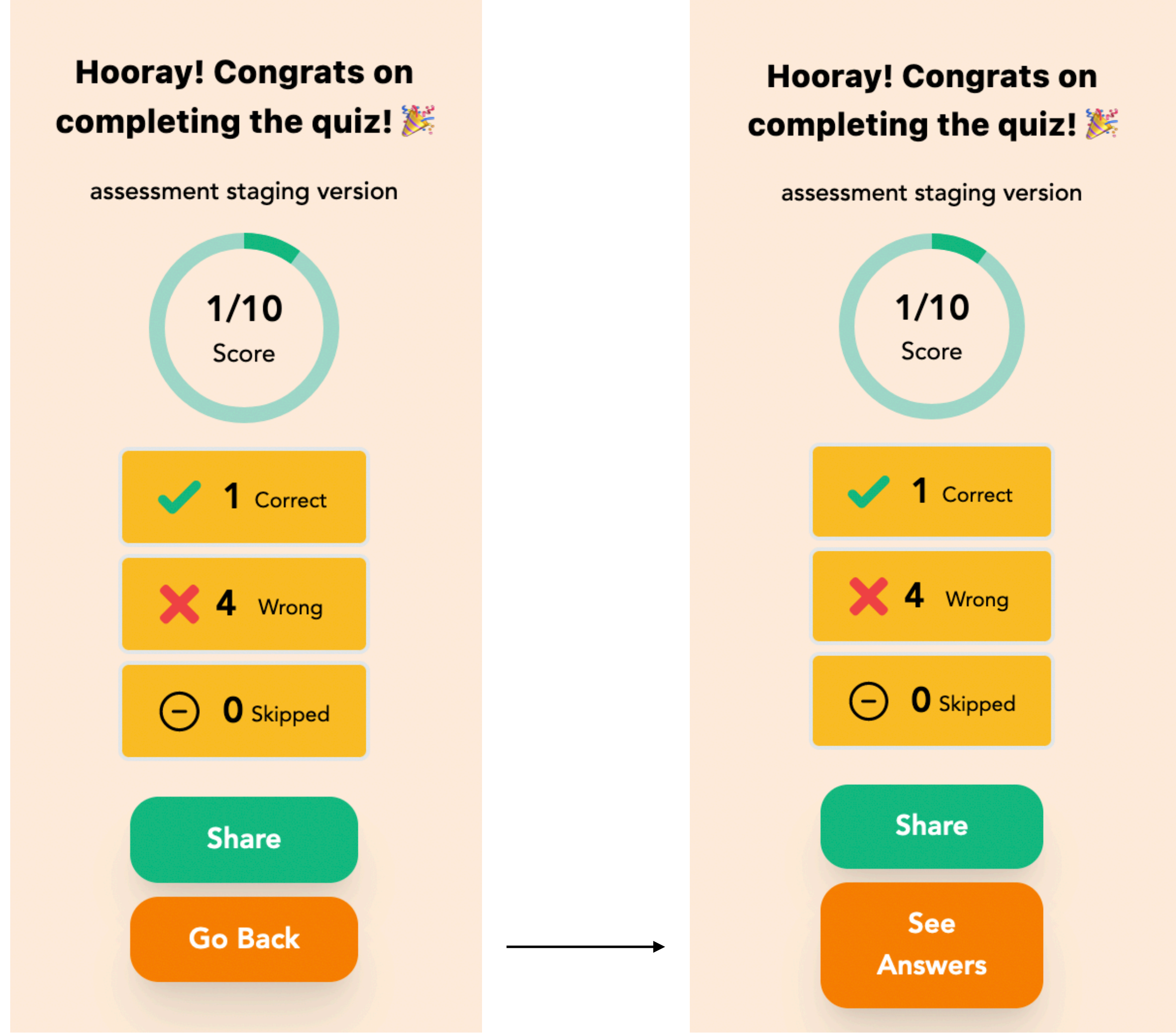
Avanti Fellows

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?

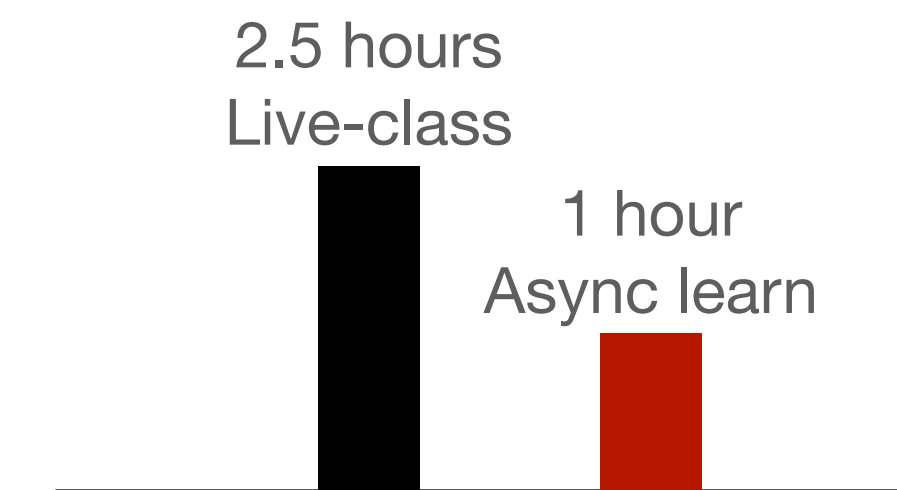
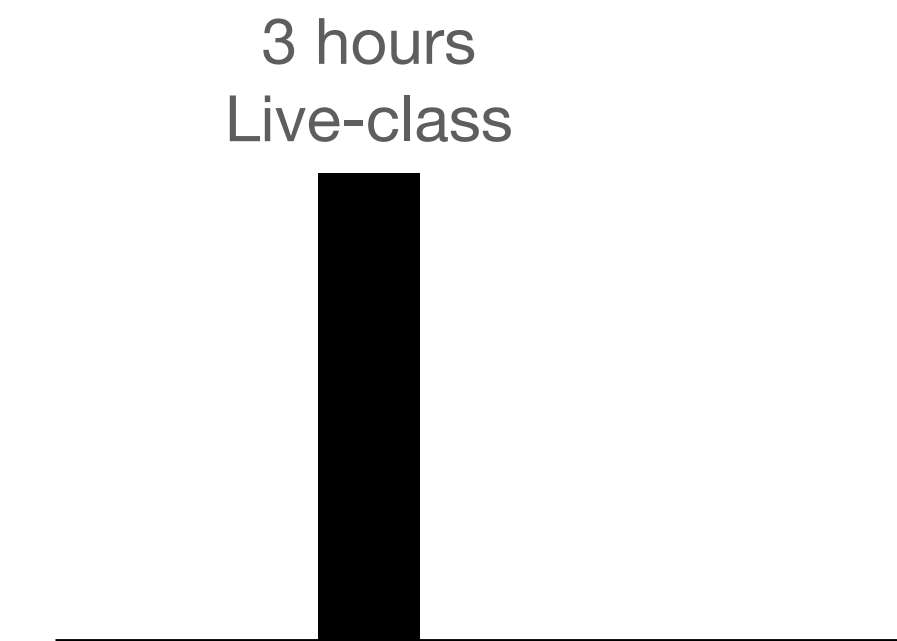
- Increase the no. of students per teacher?

=> “YouTube video hi dekh leta hu”

- Reduce live class time?

We bet on ***increasing async learning time***

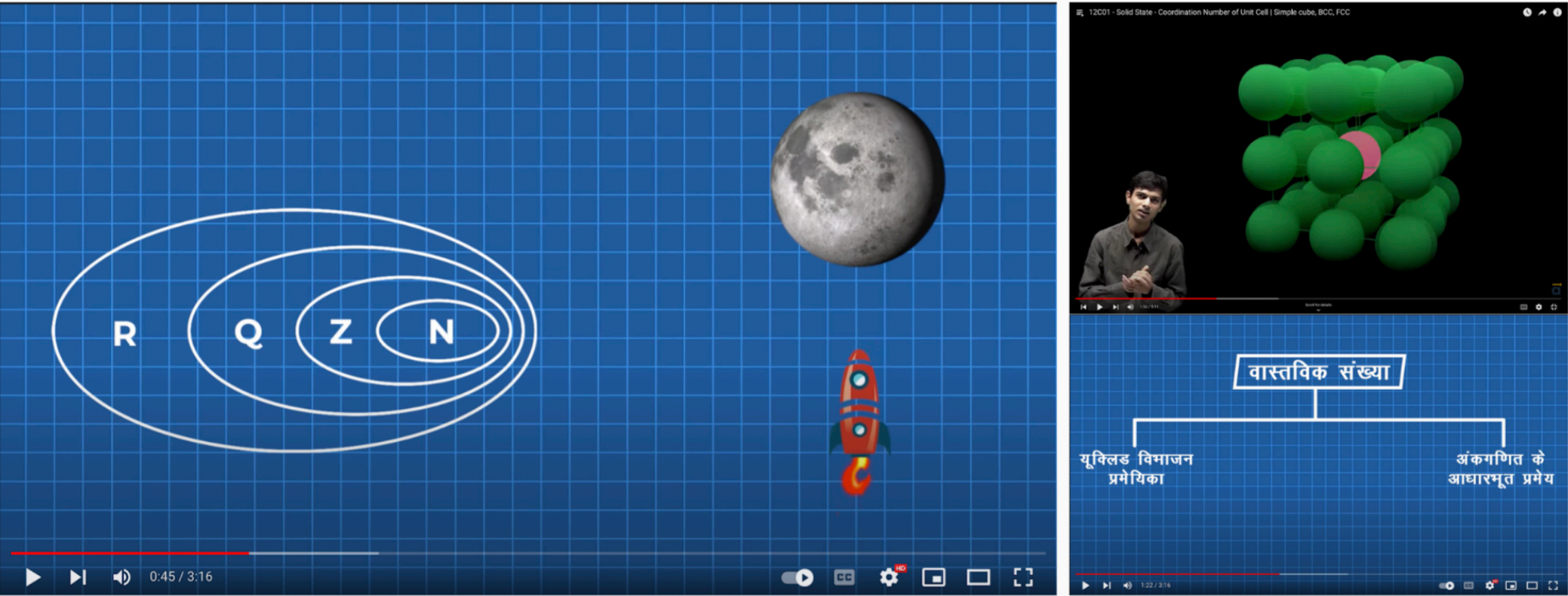
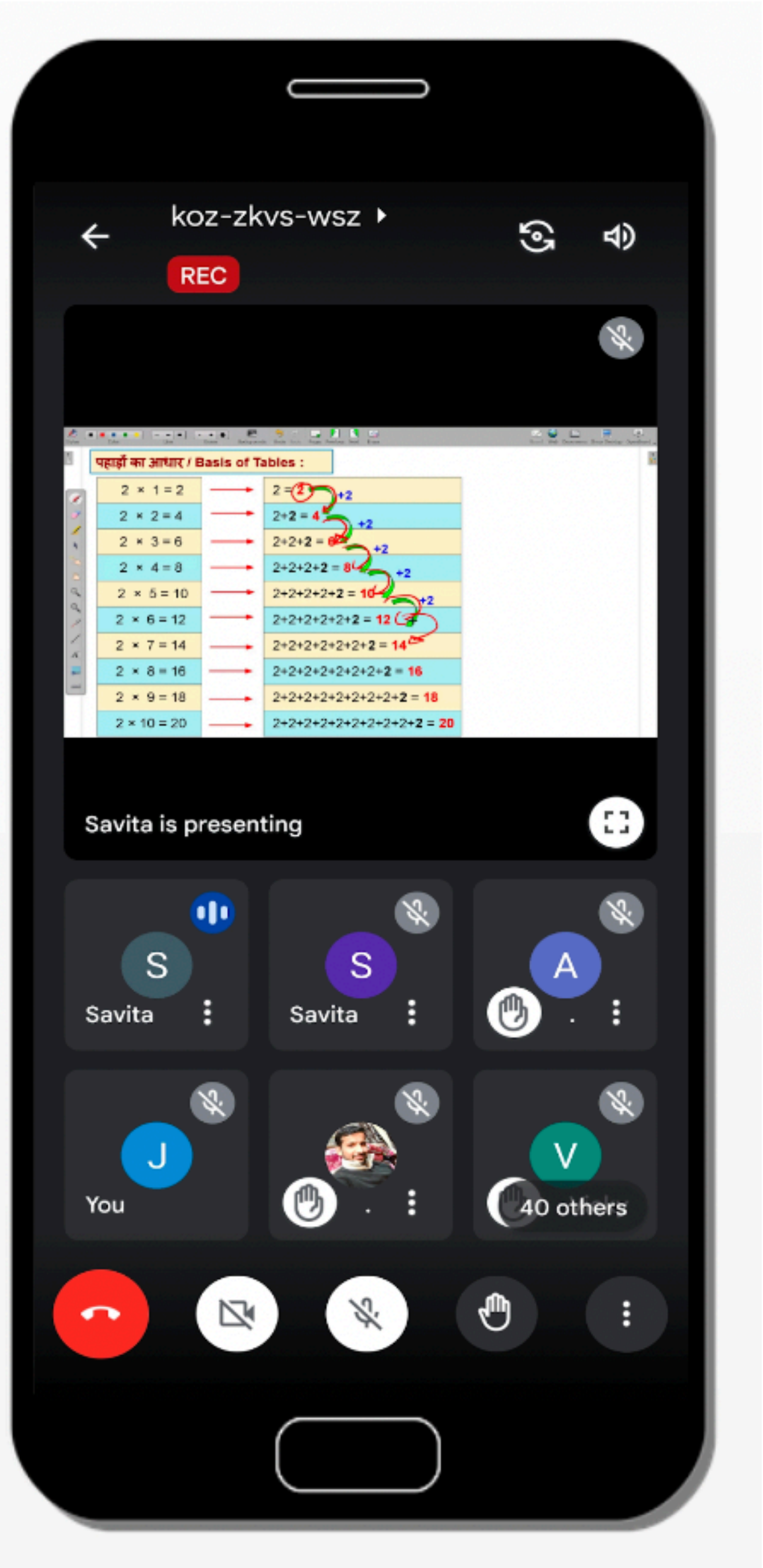
- plios, revising recorded videos, homework, **quizzes**, etc (nudge via WhatsApp **glific**)



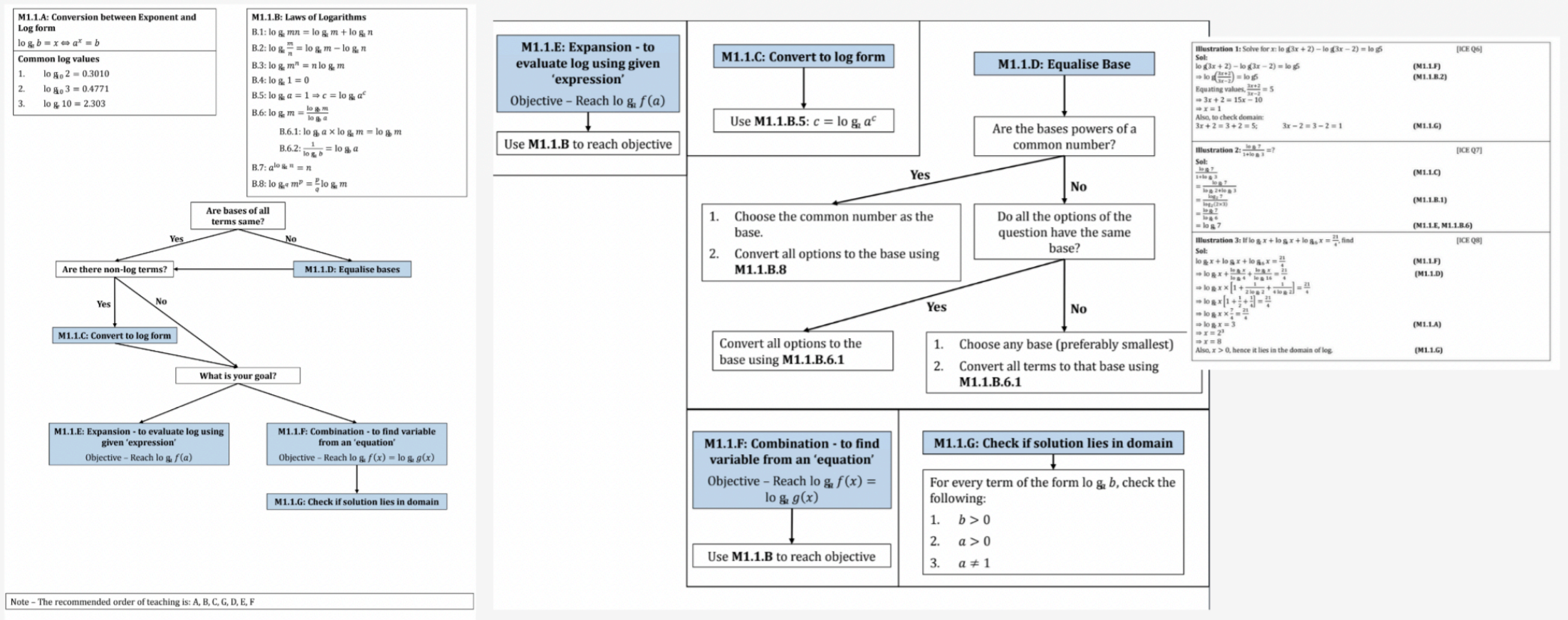
Product Walkthrough

Live classes

Recorded classes + additional content in English, Hindi



Question Bank (~1.5 lakh) —> Quizzes, worksheets



Lesson Plan Webapp

haryana-teachers-af.web.app

Lesson Plans

Choose Subject
Maths ☒
Science ☒

Choose Grade
10 ☒
9 ☒

Choose Chapter
All

Show all plans

Exam
Chapter: 10M08 त्रिकोणमिति का परिचय
Topic: Exam Preparation

Exam
Chapter: 9M03 निर्देशांक ज्यामिति
Topic: Exam Preparation

Exam
Chapter: 10M09 त्रिकोणमिति के कुछ अनुप्रयोग
Topic: Exam Preparation

Whatsapp

3 Avanti Fellows

पर <https://bit.ly/2Xa04EY> 5:05 PM

Mon, 28 Feb

प्रिय विद्यार्थी,

आज शाम आपकी गणित की लाइव क्लास होनी है। सभी विद्यार्थी क्लास शुरू होने के पहले ही अपनी कॉपी और कलम के साथ अपनी नींव वर्कशीट लेकर तैयार रहे! 😊

कक्षा 🏠 - 9
अवंती शिक्षक 🧑‍🏫 - Mr.Deepak Gupta
समय 🕒 - 7PM - 8PM
लिंक 📎 - <https://bit.ly/2XbGb0p>

इस लिंक पर क्लिक करते ही आपसे SRN पूछा जाएगा। आप सभी को अपना सही सही SRN भरना है ताकि आपकी आज की लाइव क्लास की अटेंडेंस लग सके। SRN भरते ही आप गणित की लाइव क्लास को जॉइन कर पाएंगे।

अगर कोई विद्यार्थी किसी कारण से **7PM - 8PM** वाली गणित की लाइव क्लास जॉइन नहीं कर पाता है तो वह **8:30PM - 9:30PM** वाली भी क्लास जॉइन कर सकता है, इस लिंक पर <https://bit.ly/31ISEL9> 7:07 AM

Authentication Layer

Enter your SRN / अपना SRN दर्ज करें

1754213657

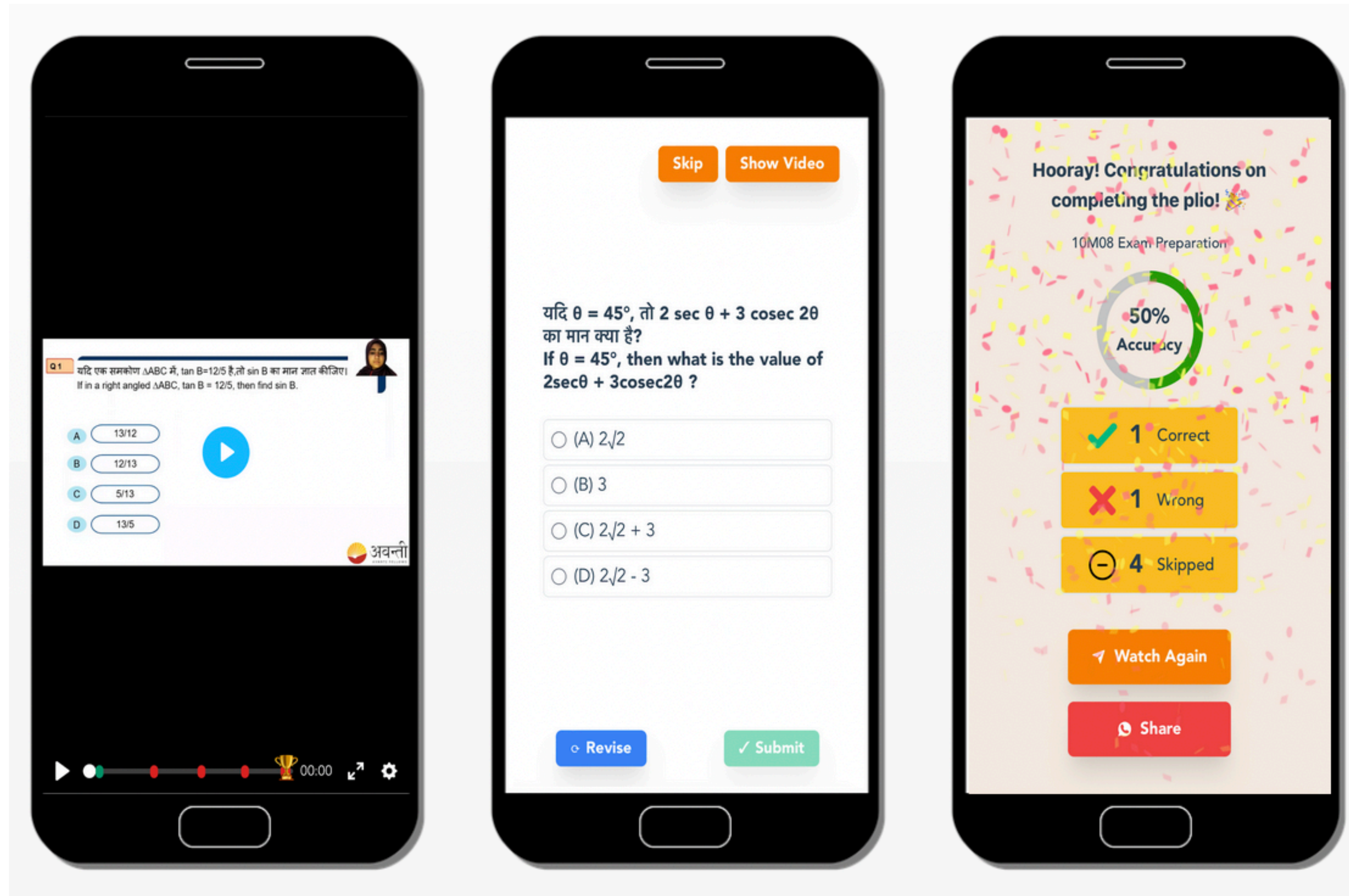
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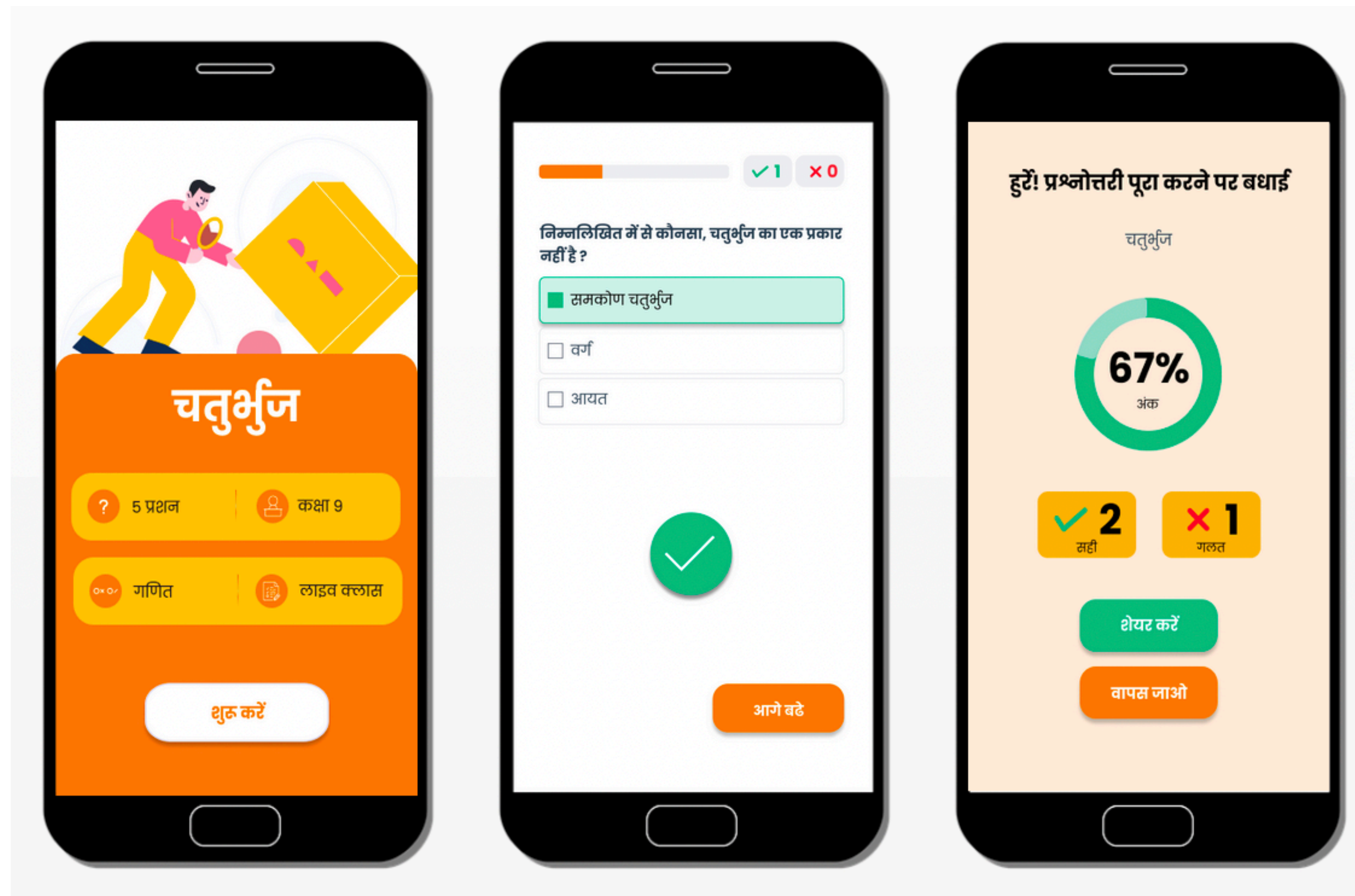
+ Add another SRN / एक और SRN दर्ज करें

SUBMIT / जमा करें

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>

Assessment: <https://staging-quiz.avantifellows.org/quiz/62c689173c3357c57b9a4258?userId=abcd&apiKey=6qOO8UdF1EGxLgzwlbQN>

Quiz Engine

Alternatives?

Google Forms

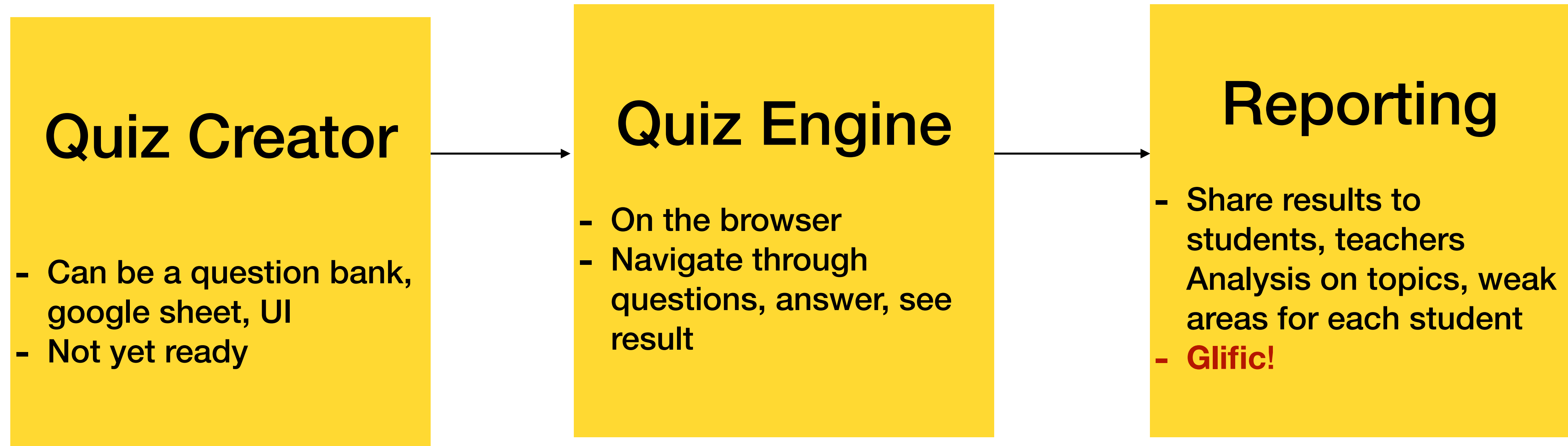
- can't gamify
- no optional questions
- tough to clean/analyze data
- tough to connect with our question bank
- limit on number of rows
- doesn't look like NTA
- no optional questions
- tough to navigate across 180+ questions

The screenshot displays a web application interface for a quiz. On the left, a question is shown with a score of 248. Below the question, there are four radio button options labeled 1), 2), 3), and 4). At the bottom of the question area, there are four buttons: 'SAVE & NEXT' (green), 'CLEAR' (white), 'SAVE & MARK FOR REVIEW' (orange), and 'MARK FOR REVIEW & NEXT' (blue). To the right of the question area, there is a navigation grid consisting of a 5x8 grid of buttons numbered 01 to 56. The first button (01) is highlighted in orange. Above the grid, there is a legend for the status of the questions: '99 Not Visited' (grey), '0 Answered' (green), '1 Not Answered' (orange), '0 Marked for Review' (purple), and '0 Answered & Marked for Review (will be considered for evaluation)' (purple with a green checkmark). At the bottom of the grid, there are three buttons: '<< BACK' (grey), 'NEXT >>' (grey), and 'SUBMIT' (green).

NTA Web Application with ~20 sample papers

Quiz Engine

Open-source, most of the code is from Plio

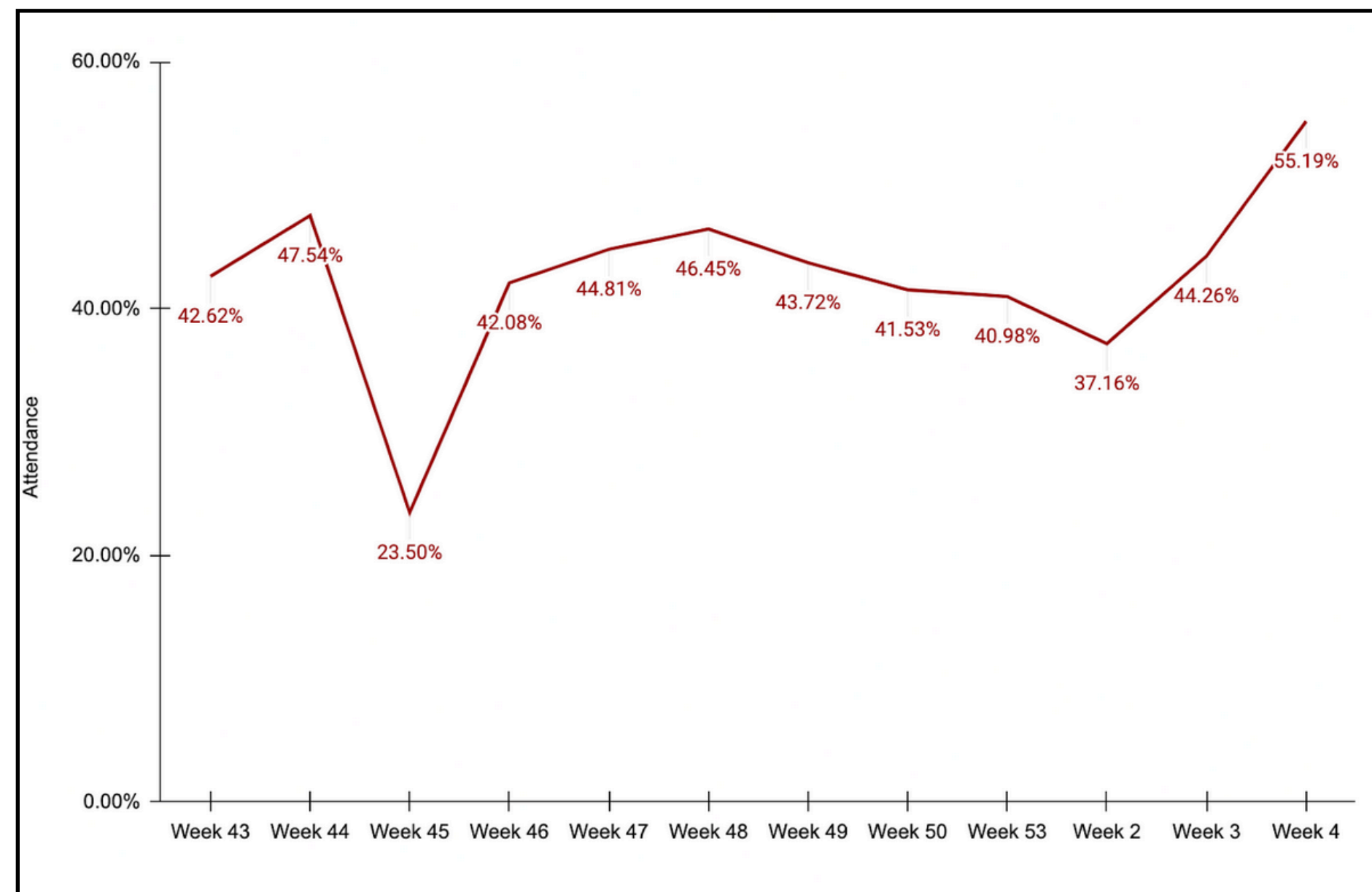


Glific Use-cases

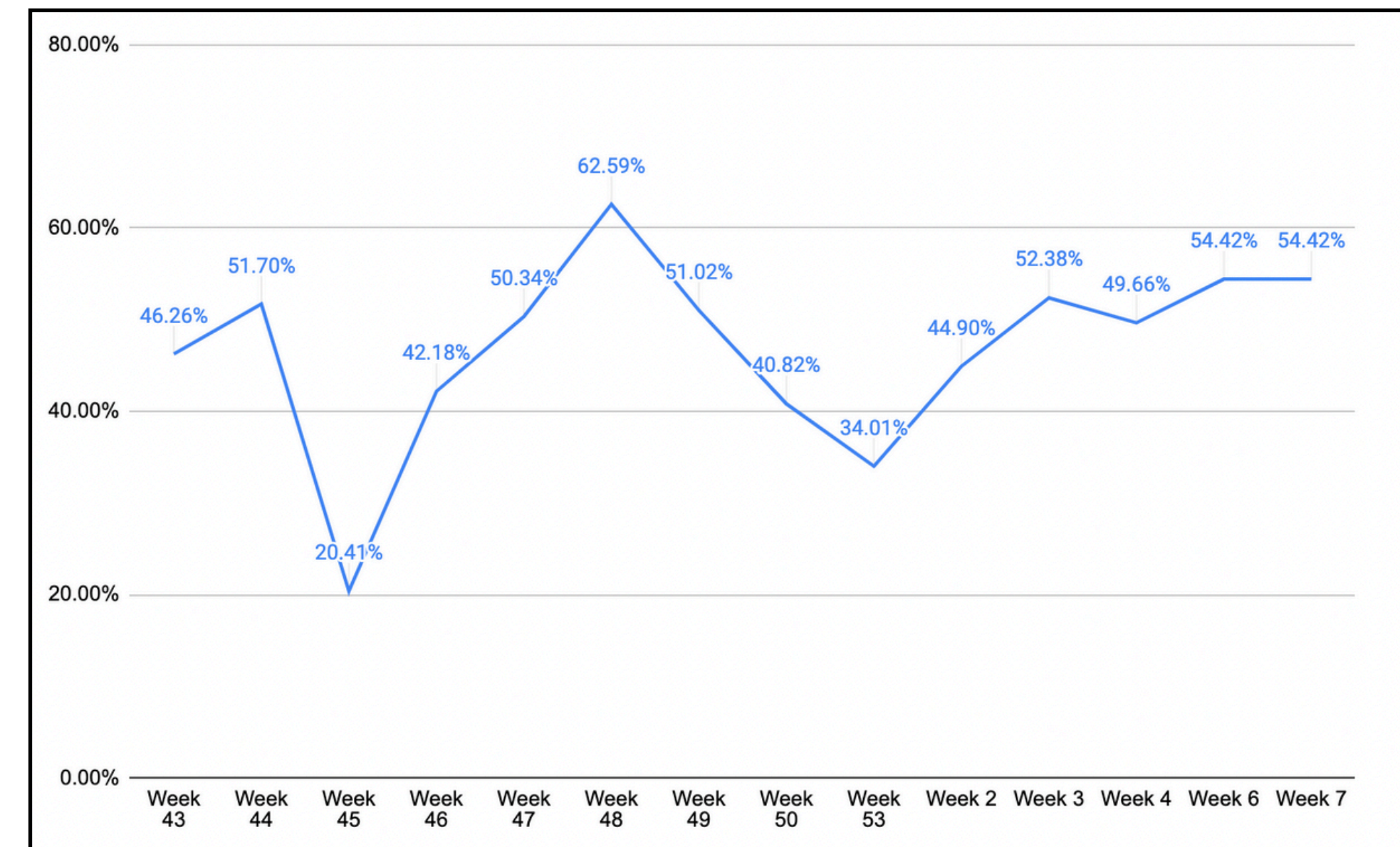
Glific Live-class experiments

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)

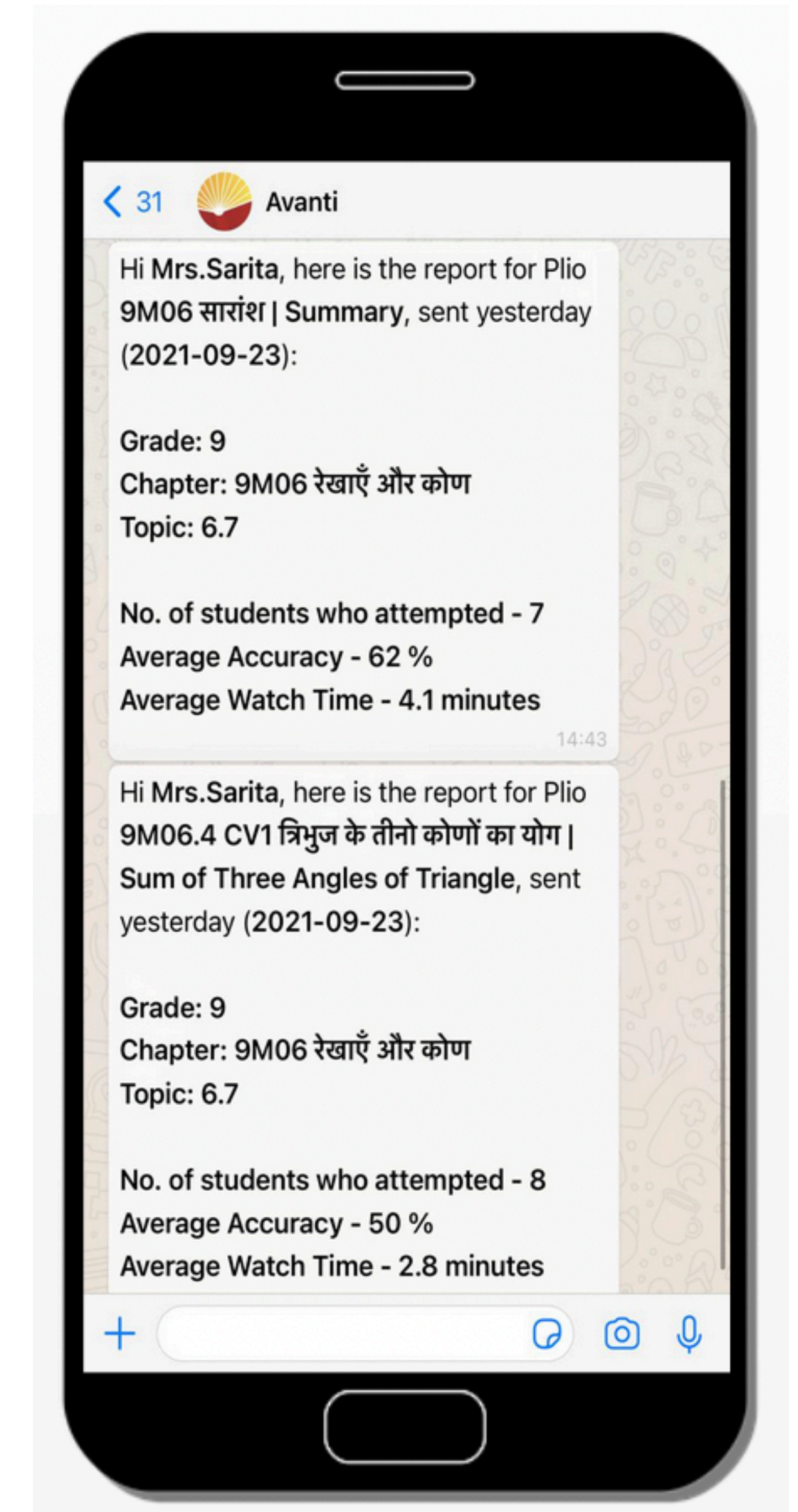


Glific + AF

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