

Qualitative Study Results



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Project Group-01

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Participant Stats

We were able to get,

- 19 responses from the tutor survey form all of them reported to have more than 1 year of experience in tutoring.
- 12 responses from the student survey form. All of them are from Bangla medium and among them 9 study between classes 6 to 10, 2 in classes 1 to 5 and 1 above class 10 .
- Face to face interviews (via online video call) with 6 tutors (4 male, 2 female) and 1 student (a boy).

In total we collected data from 38 participants. Out of which 31 were from online survey form and 7 from face to face interviews via online video call.

Interview Findings

1. Among the student participants- the survey form revealed 75% (9 out of 12) have tuition teachers, the one student interviewed face to face also reported to study in a coaching. Among the tutors- 89.5% (17 out of 19) reported teaching science or science related subjects such as Chemistry, Physics and Biology.
2. All the participants reported to have used smartphones for teaching/studying purposes quite often. The student survey form revealed that- 83.3% (10 out of 12) of the students used smartphones, among them 91% (11 out of 12) said they use it for online classes during lockdown and/or watch YouTube videos. From the tutor survey form we found that 78.9% (15 out of 19) have used smartphones for teaching purposes.
3. From both the face to face and survey forms we found that the most common use of smartphones during learning/teaching are-
 - a. Watching/showing YouTube videos of channels that provide Bangla medium high school content. From face to face interviews with tutors we were able to gather some of the preferred channels- *“Technic Easy Education”*, *“10 Minute School”* and *“Onnorokom Pathshala”*.

- b. Searching the internet or dictionary for the meaning of various unorthodox terms that come up while reading/teaching.
 - c. Looking for more understandable images of figures included in textbooks from the internet.
- 4. From the surveys we found that 75% (9 out of 12) students and 84.2% (16 out of 19) tutors agreed that figures in their textbooks help understand topics better. We found such feedback from both tutors and students in face to face interviews too. Clearly figures provide visual aid and help learn/teach better.
- 5. A noteworthy finding from the face to face interviews with the tutor participants was that smartphone usage for teaching/learning purposes is frowned upon by most parents. One of the participants said that before using smartphones for teaching a student he asked parents permission because he was afraid of what the parent might think and most of the parents frowned upon using smartphones, while another participant exclaimed he refrains from using smartphones when teaching a new student.

Features Extracted from Findings

The features for the Android app extracted from the findings of our qualitative study are listed below,

- 1. Design the home screen of the app in a similar style as the index of school textbooks with the book name on top and a list of chapters. Users can select each chapter and a screen would open up for the selected chapter.
- 2. The chapterwise screen consists of three elements-
 - a. Videos of that particular chapter, collected from popular Bangladeshi YouTube channels- *“Technic Easy Education”*, *“10 Minute School”* and *“Onnorokom Pathshala”*. There would be multiple videos from different channels on that particular chapter and these videos would be horizontally scrollable.

- b. A “view figures” button which will open up the screen for scanning images of figures from the book and show their corresponding 3D model.
 - c. A search bar for searching particular Bengali or English terms from the book. Typing a word in it and hitting the search button would open a webview of the Google search engine for the typed word **with safe search mode turned on**.
- 3. If the phone does not support ARCore, there will be an option for viewing 3D models of the figures inside the app (same way as mobile 3D shapes in mobile games are shown).