

Qualitative Study Overview



Course: CSE499 (Senior Design Project)

Section: 18

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Project Group-01

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Project Initial Features

AR-Schoolbook, an android app targeted for Bangla medium class-7 students. Initial features include,

1. Each figure and experiment included in the book will be used as a marker.
Pointing the camera at these markers will start the AR view/interaction.
2. AR experiences will be of two types,
 - a. Biology figures- A sizable 3D model of the figure will appear on screen and the user can touch different parts from the figure to highlight.
 - b. Chemistry/Physics experiments- 3D models of the equipment will appear and by pressing a proceed/back button steps of the experiment will play out in reality.
3. A user(Teacher) can share his/her live AR interactions with other multiple users nearby without the internet and also remote users through the internet. In this case only the user sharing the screen can interact with the AR setting.
4. The user who is sharing can grant/revoke other users to control the AR setting (e.g- point out different parts in case of biology figures).

Interview Type

1. One to one interview- face to face or online.
2. Online survey- by releasing google forms.

Interview Group

1. **Tution Teachers**- We could not connect with any professional school/college teachers, instead we decided to choose University students with experience in tutiony and/or teaching in various coaching centers.
2. **High school students**- Currently attending school from classes 6 to 10.

Interview Questions for Students

1. **What is your name? Which school do you go to? Which class do you study in? What are your hobbies? [Icebreaking]**

(তোমার নাম কি? কোন স্কুল-এ পড়? কোন ক্লাসে? তোমার **hobbies** কি?)

2. **Do you own a smartphone? What model is it?**

(তুমি কি **smartphone** চালাও? কোন **model**?)

3. **Do you play games on smartphones? Which ones?**

(**Phone**-এ **games** খেল? কোনটা বেশি খেল?)

4. **Do you do online classes on a smartphone?**

(**Online class** কর **phone** দিয়ে?)

5. **Do you use smartphones for any study-related purpose? If yes, what for? If not, any reason for avoiding it?**

(পড়াশুনা **related** কিছু করা হয় **phone** দিয়ে? কি কর / পড়াশুনার সময় **phone** ব্যবহার **avoid** কর?)

6. **Do you like your school science books? Can you explain why/why not?**

(স্কুলের বিজ্ঞান বই ভাল্লাগে? কি ভাল্লাগে / কি ভাল লাগেনা?)

7. **Do you have a tuition teacher? Who do you like more to learn from school classes or tuition?**

(তোমার **tuition teacher** আছে? কার কাছে পড়তে বেশি ভাল লাগে- স্কুল ক্লাসে নাকি **tutiony**-তে?)

8. **Does your school use any electronic device for teaching? What is that device?**

(তোমার স্কুলে কোন আলাদা **electronic device use** করে ক্লাসে? কি **device use** করে?)

Interview Questions for Tutition Teachers

1. What is your name? How old are you? What do you do? [Icebreaking]

(আপনার নাম কি? আপনার বয়স কত? আপনি কোথাও **job** করেন?)

2. What smartphone do you use?

(কোন **smartphone** use করেন?)

3. How long have you been tutoring? What subjects do you teach?

(কতদিন ধরে আপনি **tutiony** পড়াচ্ছেন?)

4. What is your preferred teaching material? Textbooks, guides, notes or some other medium? Can you explain why you prefer them?

(আপনি **teaching material** হিসেবে কি **use** করে থাকেন? **Textbook, guidebooks or** অন্য কিছু? কেন এটা **prefer** করেন, একটু **explain** করা যাবে?)

5. Do you face any challenges teaching science or science related subjects? Can you explain?

(**Science subject** টা **or** অন্য **science related subjects** পড়াতে গিয়ে আপনি কি ধরনের **challenges/problems** face করেন? একটু **explain** করা যাবে?)

6. Have you ever used smartphones to teach your students? If yes, what for? If not, any reasons for avoiding it?

(**Smartphone** ব্যবহার করে **student** দেয় পড়িয়েছেন কখনো? **If yes**, কি পড়াতে গিয়ে ব্যবহার করেছিলেন **smartphone**? **If not**, কোন **specific** কারণ আছে পড়ানোর জন্য **smartphone** ব্যবহার **avoid** করার?)

7. Have you ever used any technology/electronic device for teaching? If yes, what was it and what did you use it for?

(কখনো কোন ধরনের **electronic device or technology** use করেছেন পড়ানোর জন্য? **If yes**, কি **device/technology** use করেছিলেন, **specific** কি পড়াতে **use** করেছিলেন?)

Online Survey Questions for Students

1. Which class do you study in? (choose one)
 - a. Class 1 to 5
 - b. Class 6 to 10
 - c. Above class 10
2. Do you know how to use smartphones? (choose one)
 - a. Yes
 - b. No
3. What do you do with smartphones? (can choose multiple)
 - a. Play Games
 - b. Use Facebook/Instagram/Whatsapp
 - c. Watch videos on Youtube
 - d. Online class
 - e. During studying
 - f. Others
4. Do you have a tuition teacher? (choose one)
 - a. Yes
 - b. No
5. Do figures given in science books help you understand better? (choose one)
 - a. Yes
 - b. No
6. Which study material helps you the most? (can choose multiple)
 - a. Text books
 - b. Guide books
 - c. Notes from tutors
 - d. Others (provide description)
7. Do you know what Augmented Reality is? (choose one)
 - a. Yes
 - b. No

Online Survey Questions for Tution Teachers

1. How old are you? (choose one)
 - a. Below 18 years old
 - b. 18 - 20 years old
 - c. 20 - 22 years old
 - d. Above 22 years old
2. How long have you been a tuition teacher? (choose one)
 - a. Few weeks
 - b. Few months
 - c. Few years
3. What subject have you taught? (can choose multiple)
 - a. Science related subjects (Physics, Chemistry, Biology etc)
 - b. Mathematics
 - c. Others (Social Science, Bangla, English etc)
4. What are your preferred teaching materials? (can choose multiple)
 - a. Text books
 - b. Guide books
 - c. Notes from other sources
 - d. Others (provide description)
5. Do you face any challenges teaching with those materials? Can you please explain?
(provide description)
6. Do the figures given in science books help students understand better? (choose one)
 - a. Yes, most of the figures help a lot (Strongly Agree)
 - b. The figures help a bit (Agree)
 - c. Never taught anything using the figures (Neutral)
 - d. The figure don't help very much (Disagree)
 - e. No, most of the figures are not helpful at all (Strongly Disagree)
7. Have you ever used smartphones for teaching students? (choose one)
 - a. Yes
 - b. No

8. How did you use a smartphone in teaching? Ignore if you haven't ever used smartphones for teaching. (provide description)
9. Have you ever used Augmented Reality technologies for teaching? (choose one)
 - a. Yes
 - b. No
10. What specific Augmented Reality technology did you use and what was your experience? Ignore this question if you haven't used Augmented Reality for teaching. (provide description)

List of Tuition Teachers selected for Interview

1. Nazim Kamol (nkhassan.33@gmail.com)
2. Nazif Ali (nazif.ali334@gmail.com)
3. Faiaz Hossain Chowdhuri (faiazhossainchowdhury@gmail.com)
4. Mehreen Afree (tushtiahmed@gmail.com)
5. Rafia Sarwar (rafiasarwar68@gmail.com)
6. Arpita Pandey (arpitapanday98@gmail.com)
7. Tasneem Muneera Protttyasha (tasneemmuneeraprottyasha@gmail.com)