EKG Engage, Know, Grow

Baihan Z., Matthew G., Jessica Y., Oumnia C.

[Link to Prototype](#)

Introduction

K-12 teachers struggle to develop meaningful relationships with their students, leading to low student engagement and overall less effective learning environments. EKG gamifies the getting-to-know-you part of the teacher's job to collect student information through fun and privacy-conscious games like Truth or Dare, helping teachers to know their students on a personal level.

Installation Requirements

Begin by creating a clone of your repository. A clone is a local copy of a Github repository that can be synced with your remote repository. Navigate to your directory (link should be something like github.com/cs147L-24au/<your SUNet ID>)
Click the green "Code" button and select "Open with GitHub Desktop". This should take you to Github Desktop where you will select the local path where you want the clone to reside. Press Clone once you're done. Now you are able to make local changes to your repository.

Run "npx expo start" to start the development server. On your phone, scan the QR code with the Expo Go app (Android) or your camera (iOS). To run the app: download it from github, open it on visual studio code preferably, in the terminal below run npm install, then run npx expo start

Operating Instructions (Teacher's POV)

Navigation Bar (bottom of all screens)

> From left to right:
- "Classes" button linked to page with period selections
- "Games" button linked to page with options to select period and game style
- "Notifications" button linked to page with all notifications
- "Settings" button linked to page with user settings

"Classes" Page
- Choose/view class periods
    - Basic information provided regarding subject and time
    - Clicking on any period would direct to the corresponding "Period Dashboard" page
- "Search" button on top right corner linked to "All Students" page
- "Info" button provides the user with a quick introduction to EKG
- "Start a Game" button linked to the "Games" Page

"All Students" Page
- Search for students by entering their name
- Scroll and view all students in all periods (name, headshot photo, most recent "truth" response for Truth or Dare

"Games" Page
- Three radio buttons to select which experience you want to engage in:
    - "Two Truths and A Lie" button to select a game of Two Truths and A Lie
    - "Truth or Dare" button to select a game of Truth of Dare
    - "Customize" button to select a chat with an AI agent
- One "Information" button that explains the three game options
- "Period" drop-down to toggle to a different class period
    - If coming from a period dashboard this will default to that period
    - Otherwise it will default to the first period
- "Start Game!" button to begin the selected game
- "Previous Games" button linked to "Previous Games" Page

"Previous Games" Page
- View history of all past games (date, period, game name)
- Click on any games directs to the corresponding "Game Summary" page:
    - View all responses (student name, headshot photo, and truth responses), count of total responses, count of "dare" and of "truth", period, and time elapsed for the gameplay

"Period Dashboard" Pages
- View list of students in the period (name, headshot photo)
- "Search" button linked to "All Students" page
- Notifications displayed for students in that period
    - If the user clicks on the drop-down menu, they can either save it to the student's profile or dismiss it.
- Clicking on any student directs to the "Student Profile" page for that student
- "Start a game" directs to the "Games" Page

"Student Profile" Pages
- View student information
    - Student's school photo
    - Student's full name
    - Class period where you teach the student
- "Edit" button allows you to change any displayed student information
- Summary section that lists information about the student gathered through EKG
- General Information section that lists the information a teacher has selected in their preferences.
- "Info" button that contains instructions on what to do with the student information, and how it can be updated.

"Two Truth and A Lie" Page
- As students respond to the prompts the page shows students' responses one-by-one:
    - "Truth" button to guess that the response is true
    - "Lie" button to guess that the response is a false
- Both buttons lead to an immediate response from the app to reveal the correct guess, then if the statement was true:
    - "Save" button to save the fact to the student's profile then move on to the next student response
    - "Dismiss" button to not save and move on to the next student response
- If the statement was false:
    - "Dismiss" button to move on to the next student response

"Truth or Dare" Page
- Textbox area to input the desired prompt for "Truth"
- Textbox area to input the desired prompt for "Dare"
- "Information" button explains how to play Truth or Dare
- "AI Help" button to interact with a chat bot to suggest prompts
- "Start Game!" button to start the game by sending the prompts to students.

"Game Summary" Page
- Once students finish entering/performing chosen tasks, the page shows student responses and a running tally of how many responses have been received. These are broken down into number of Dares and number of Truths
    - "End Game" button to end the game and view its "Game Summary" Page.
    - For each specific response:
        - "Save" button to save the fact to the student's profile then move on to the next student response
        - "Alert" button to send a notification to all of the teachers of this student with this information
        - "Dismiss" button to not save and move on to the next student response

"Notifications" Page
- Notifications displayed for students in all periods (similar to period pages)
    - If the user selects the notification they can either save it to the student's profile or dismiss it.

"Settings" Page
- Profile picture
- Display name
- Role
- "Account Settings" button where users can edit their username and/or password.
- Users can update their selection by checking or unchecking the list of information they would like displayed in student profiles.

"AI Chat" Page
- White chat bubbles that are filled with the AI's comments
    - A first bubble will be populated with a conversation starter
    - Time stamps are included for when the response was generated
- Orange chat bubbles that are filled with the user's previous conversations
- A text box at the bottom of the screen where the user can enter their next comment

Operating Instructions (Student's POV)

"Home" Page
- Cards with each current assigned task
    - The class that assigned the task
    - The specific task (Truth or Dare/ Two Truths and a Lie/Etc)

"Truth or Dare" Page
- The truth or dare prompt at the top
- Radio buttons to select with Truth or Dare
- A text field for students' truth or dare response
- "Submit" Button

"Two Truths and a Lie" Page
- Three text fields
    - Truth field one
    - Truth field two
    - Lie field
- "Submit" Button

Prototype Building Tools

- **Figma** to build out screens of prototype
    - Pros:
        - Current State of the Art
        - Easy collaboration
        - Built-in and customized assets
    - Cons:
        - Limited functionality in the unpaid version (ex. no way for radio buttons to influence outcome)

Limitations

- Features not Included
    - Additional experiences- while other games are potentially worth developing this is a viable MVP
    - AI Alerting- this will follow the same path as non-AI notifications and the AI features are mocked at this time so it doesn't add to the experience.
- Hard-coded and Wizard-of-Oz Features
    - AI chat bot. The functionality of AI suggesting Truth or Dare prompts is hard-coded because it will be relatively easy to implement through OpenAI APIs but usage costs money so it is not necessary at this point.
    - Networking between teacher and students. The functionality of networking has not been added because no one user will see both screens. At this point having static information in the student profile ensures that teacher experimenting doesn't create an overwhelming experience of many many assignments in the student view.