Part 3.2 System Evaluation

Project Description

The Uplift;U application is a digital tool that helps students manage their mental health concerns by providing a comfort space to express themselves. With rising stress, anxiety, and other mental health conditions among students, there is a pressing need for easily available, tailored, and dependable mental health options. This project attempts to meet this need by creating an application that features a variety of stress management activities such as personal journals and communicating with a chatbot to express themselves when they have no one to talk to or avoidant when speaking their thoughts and feelings with others.

Requirements Summary

MINIMUM REQUIREMENTS	Processor Core	Single Core
	OS	Android 4.4 (KitKat)
	RAM	2 GB
RECOMMENDED REQUIREMENTS	Processor Core	Quad Core
	OS	Android 8.0(Oreo)
	RAM	4 GB
OTHER REQUIREMENTS	Permissions	Notifications and Storage

Table 1. System Requirements

Overview

The team's initial evaluation plan involves conducting surveys using Google Forms to gather user feedback on our Mental Health Awareness application the Uplift;U prototype. This technique seeks to examine usability specifications, use Usability Specifications, Heuristics Evaluation and Feedback on overall satisfaction and recommendations for improvement.

Technique	Description
Usability Specifications	Usability Specifications is a technique used to evaluate the prototype's usability through tasks performed by participants. This includes timing

	how quickly participants complete tasks. The tasks are divided into three sections: Navigation Tasks, Support Interaction Tasks, and CRUD Tasks. This approach helps identify flaws and assesses how easy the prototype is to use.
Heuristics Evaluation	This technique uses the rule of thumb to evaluate user interface usability through separate walkthroughs, identifying flaws for heuristic evaluation. Evaluators apply established heuristics to provide insights for improving product usability.
Participant Survey and Feedback	A survey will be provided to participants after using the prototype. The survey will include quantitative questions interpreted using a 5-point Likert scale and qualitative questions for feedback. This approach ensures that the evaluation results are free from bias.

The tasks for this Prototype are divided into three sections: Navigation Tasks, Support Interaction Tasks, and CRUD Tasks. Below are some of the tasks that selected participants will be asked to perform for each section to showcase the prototype's functionality:

Navigation Tasks:

- Enter and exit the prototype application.
- Navigate through different sections of the application.
- Access specific resources and information within the app.

Support Interaction Tasks:

- Use the chatbot feature to ask a mental health-related question (Chatbot: 2 chat entries).
- Connect with a mental health professional through the app.
- Provide feedback or report an issue using the support options.

CRUD Tasks

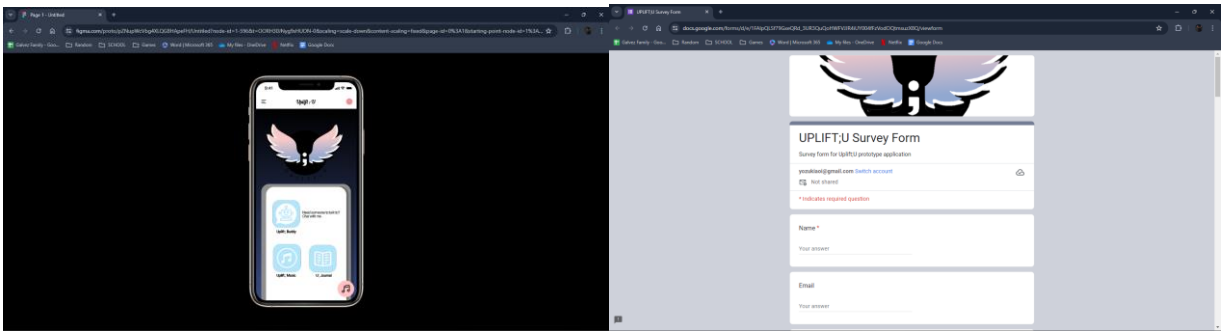
- Create, read, update, and delete entries in the journal.

These tasks were selected because the prototype was designed with the following goals in mind:

- **Easy Navigation**
- **Immediate Support**
- **CRUD (Create, Read, Update, Delete) functionality**

Method of conducting test:

The team utilized online media platforms to conduct the tests for this evaluation. Two (2) links were provided for this evaluation: (1) Google forms link and (2) Figma link which contains the prototype. Below is a screenshot of the prototype and the forms link:



Data Presentation

Usability Specifications

During the testing, Team KEMFET observed that participants interacted well with the prototype. Nearly all participants completed their tasks with minimal issues and quickly learned to navigate the prototype. However, some buttons were unresponsive when clicked, likely due to overlooked design constraints.

Task	Mean	Interpretation	Classification
Main Menu Task	25 seconds	Highly Acceptable	Successful
Chatbot Feature Task	4 minutes and 27 seconds	Highly Acceptable	Successful
Journal Feature Task	7 minutes and 46 seconds	Not Acceptable	Unsuccessful
Music Feature Task	6 minutes and 11 seconds	Not Acceptable	Unsuccessful

Table 3. Task Time

Table 3 shows the team's interpretation of the time spent with each participant during their tasks. The table will be used as a guideline to determine whether the provided task's design is effective.

Heuristic Evaluation

Evaluation of Uplift;U utilized the 10 Usability Heuristics method:

Visibility of System Status

The Uplift;U app was able to provide immediate and minimum feedback to users about what was happening at any given moment.

Match Between System and the Real World

The app uses basic English and concepts familiar to students, making the interface intuitive and relatable.

User Control and Freedom

The app allowed users to easily navigate the app, however, it lacked undo actions, and recovery from errors. Some of the respondents were unable to return from one page to another clearly, thus having difficulties in navigating from page to page.

Consistency and Standards

The app maintained a consistent design throughout the app, adhering to platform-specific conventions and standards. However, the number of colors used made the app more colorful than necessary.

Error Prevention

There was a lack of error prevention in most areas in the prototype. This has caused some difficulties in the participant's experience.

Recognition Rather Than Recall

Options and objects were visible for the user to use during the test. Information via labels was also visible to the users.

Flexibility and Efficiency of Use

The prototype was easily understood and used proficiently by both the experienced and inexperienced of the FIGMA style prototype.

Aesthetic and Minimalist Design

The app's interface is simple and uncluttered, displaying only relevant information. It utilizes a minimalist design with soft UI elements.

Help Users Recognize, Diagnose, and Recover from Errors

The app has unfortunately failed to achieve this Evaluation type. The app was unable to provide clear and concise error messages, nor did it provide solutions for error recovery. Clear, helpful messages could guide users to correct actions more effectively.

Help and Documentation

The users could access help via team members present during the evaluation.

Heuristic Conclusion

Overall, the prototype Uplift;U will be able to follow most of the Evaluations, with more areas that need attention and improvement.

Participant Survey and Feedback

Results

Section 1	Mean	Interpretation	Classification
On a scale of 1 to 5 how easy was it to navigate through the different sections of the Uplift;U prototype?	3.67	Acceptable	Successful
On a scale of 1 to 5 how satisfied are you with the responsiveness of the chatbot feature in the Uplift;U prototype?	3	Moderately Acceptable	Neutral
On a scale of 1 to 5 how likely are you to recommend the Uplift;U prototype to a friend or colleague?	4.2	Acceptable	Successful
Section 2			
Home Page	4.45	Acceptable	Successful
Navigation Drawer	4.8	Acceptable	Successful
Creating Journal	3.68	Acceptable	Successful
Sorting Journal	3.04	Moderately Acceptable	Neutral
Deleting Journal	3.91	Acceptable	Successful
Creating chatbox with chatbot (Uplift Buddy)	2.87	Moderately Acceptable	Neutral
Speech-recognition with chatbot	2.25	Fairly Acceptable	Unsuccessful

Playing Music from playlist	3.95	Acceptable	Successful
Average	**3.62**	**Acceptable**	**Successful**

Table 3. Survey Data Interpretation

Table 3 represents data from the survey conducted via google forms. The data shows that the current prototype for the Uplift;U application is at an Acceptable stage of quality and is concurred to be Successful. However, the average rating of 3.62 proves that there are plenty of aspects of the design that require fixing and further development. The team wants to focus on the sections deemed Unsuccessful and Neutral, namely; Chatbot features (creating chatbot and speech-recognition with chatbot) and Journal features.

Using the 10 Usability Heuristics Criteria, the data interpretation shows that while the Uplift;U prototype is generally successful, focusing on visibility, error prevention, and better user support can enhance the usability of weaker areas. Specifically:

- **Chatbot Features:** Improve system feedback, error recovery, and help documentation.
- **Journal Features:** Enhance the flexibility and efficiency of use by providing more customization options and ensuring the design remains clean and uncluttered. Offer better guidance and error prevention.

Feedback

Most of the feedback was positive. May of which complimented the design and arrangement of the elements in each panel. However, while most of the feedback was overwhelmingly positive, some comments focused on issues in navigation. Navigation in the application was a common concern. The feedback expressed here was difficulty in returning from some certain pages back to the home page. Furthermore, the difficulty in using the chatbot and journal feature of the prototype was also addressed as most users found it challenging to follow.

Design Implications:

Does your prototype need to be altered in order to address the results of the analysis, or was it completely successful?

The analysis results show that the prototype is at an acceptable stage which is considered successful. However, with consideration of the feedback and suggestions, alterations must be made in specific areas.

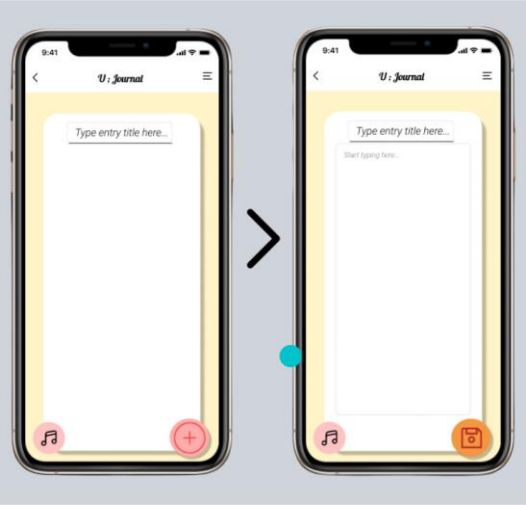
Particularly, the team would like to focus on the following:

- Journal features.
- Navigation within the application.

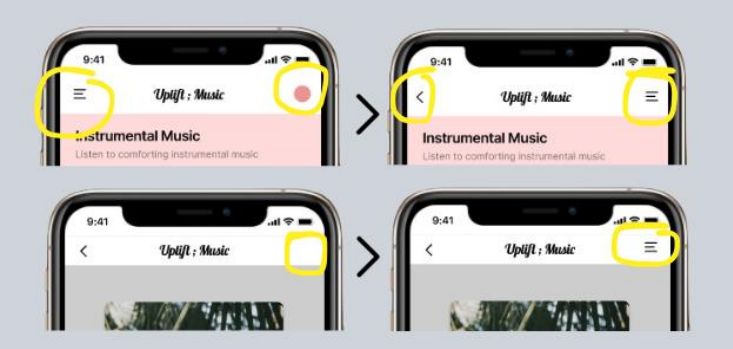
What improvements could be made to the design to address any shortcomings?

To fix these issues, various changes and additions will be done:

- Journal Features
    - Change save icon

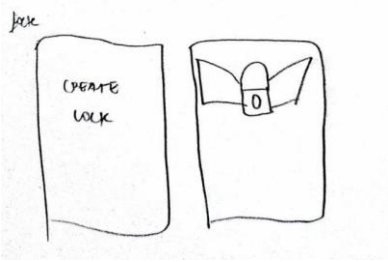


- Navigation
    - Adding more back buttons (for music feature pages)



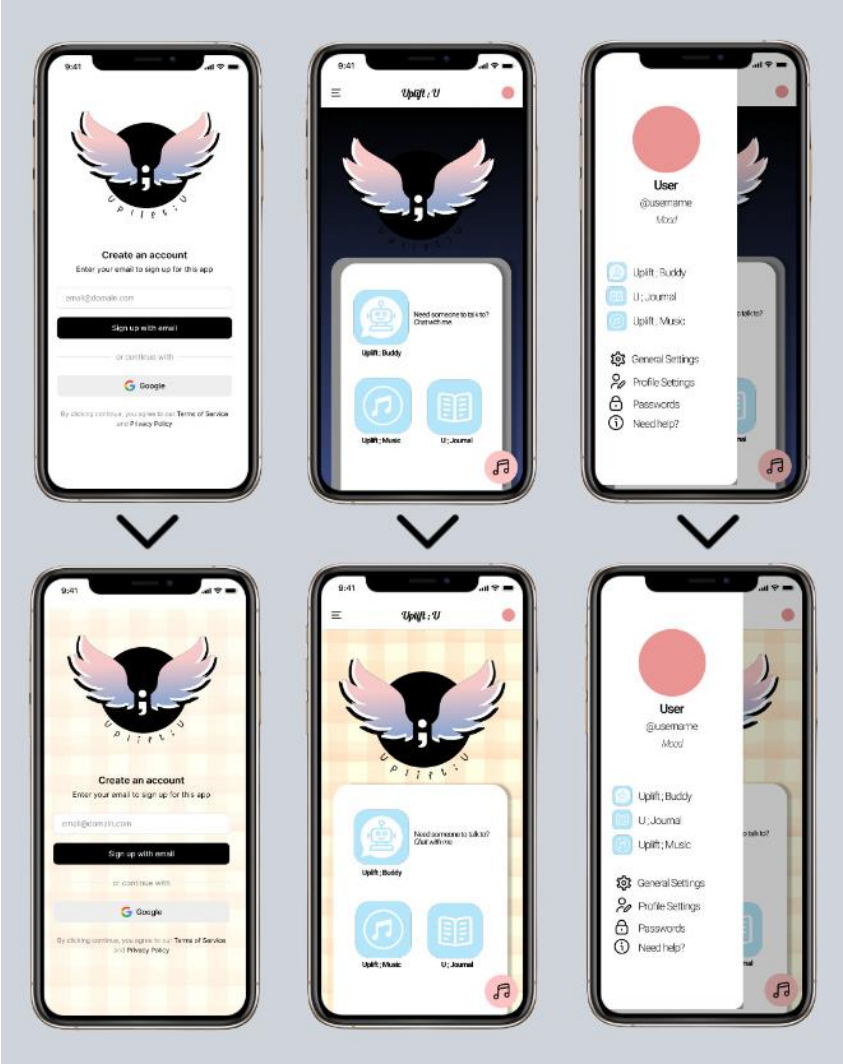
Did you discover any major flaws that would suggest a completely different type of design?

While there are no major flaws that would suggest a completely different type of design, a few ideas from the design could potentially not be well-received. Below are the following designs/ideas and sketches that potentially risks the design's usability:

 No confirm message for deleting journal.	 Password feature for every feature makes it too cluttered/overwhelming. There is also no error-handling for this feature.

Furthermore, team KEMFET would like to make renditions and additional designs to the prototype.

- Changing main menu background



- Adding Splash Art screen

- Avatar Customization

Critique and Summary

What were the advantages and disadvantages of your evaluation?

The evaluation was done to gather information from potential users essential to the prototype's creation. The advantage of this evaluation is that the team understands how the users interact with the prototype and if it functions as intended. Team KEMFET underwent a series of tests via online to see how these users interact with the prototype. Furthermore, it shows the errors and areas that need attention and improvement. However, the team faces a challenge in time management. The amount of time done during the evaluation is not enough to gather data important to the application's creation. Furthermore, the amount of time spent exploring Figma due to the team being lacking experience was one of the major factors why there was a lack of time evaluating the app. However, with the use of the internet and social networks and conducting online interviews, the team was able to gather sufficient data to finish this evaluation.

What would you have done differently knowing what you know now (both designwise and evaluation-wise)? Given more resources, what could you have done that would have produced significantly more insightful evaluation results (again, whether this is an improved prototype or a different evaluation path).

The team has recognized the advantages and disadvantages experienced during this evaluation. Given more time, the team would have explored more of Figma's features to be able to design the prototype more flexibly. Aside from Figma, the team could have also explored other similar applications that could offer widgets that match the intended design for the prototype. Furthermore, with more resources and time, the team thought that it would be possible to create a functioning prototype by implementing some back-end coding. Although inexperienced, a functional prototype is a better prototype to use during evaluation to ensure that the team can observe the users experience and satisfaction. In addition, the team could improve the existing features to become feasible and add features that would support the prototype further.

Summary of the Project

The Uplift;U application is a digital mental health tool designed to support college students in managing stress, anxiety, and other mental health challenges. It provides a safe space for students to express themselves through personal journals and a chatbot feature for when they need someone to talk to. The app aims to offer easily accessible, tailored, and reliable mental health options. The evaluation plan for the Uplift;U prototype involved usability specifications, heuristic evaluations, and participant surveys. Usability testing included tasks related to navigation, support interactions, and CRUD operations, revealing that while users could navigate the app and interact with some features easily, there were areas needing improvement, such as the chatbot and journal functionalities.

The heuristic evaluation identified several areas for enhancement, including error prevention, system feedback, and better user support. The survey results indicated that the app was generally acceptable, but specific features like the chatbot and journal needed refinement. Based on the feedback, the team plans to make several design improvements, such as adding more back buttons for easier navigation and improving the save icon for the journal feature. The evaluation highlighted the prototype's strengths and weaknesses, guiding future iterations to better meet user needs and improve the overall user experience.