

Usability Test Plan



Usability Testing Schedule

Administrator	App	Location	Testing Date	Name	
Soufia Bahmani	GSI	In Person(Library)305 room	4/8/24 13:00	Maxim Reuchlein	
Soufia Bahmani	GSI	In Person(Library)305 room	4/8/24 14:00	Patrick Janssen	
Soufia Bahmani	GSI	In Person(Library)305 room	4/8/24 15:00	Patrick Janssen	
Soufia Bahmani	GSI	In Person(Library)	4/8/24 16:00		
Soufia Bahmani	GSI	In Person(Library)301 room	4/9/24 15:00	Sean McFall	Lela Root
Soufia Bahmani	GSI	In Person(Library)301 room	4/9/24 16:00	Sean McFall	Kevin Bak
Soufia Bahmani	GSI	In Person(Library)	4/10/24 15:00		
Soufia Bahmani	GSI	Zoom(Zoom)	4/12/24 14:30	Matthew Cronin	Andrew Koman

Usability Testing Form

Participating in this usability testing study involves evaluating the interface and user experience of a designated computer application. The purpose of the study is to gather feedback on the application's usability, including its ease of use, navigational intuitiveness, and overall user satisfaction. As a participant, you will be asked to complete specific tasks using the application and answer questions about your experience. This process is designed to identify areas for improvement and enhance the application's functionality and user interface. Your participation is invaluable in helping us create a more user-friendly and effective product.

Your privacy and comfort are of utmost importance throughout this study. All information you provide will be treated confidentially, and your identity will remain anonymous in any reports or publications resulting from this research. Participation is entirely voluntary, and you have the right to withdraw at any time without any negative consequences. Should you choose to participate, please know that there are minimal risks involved, and no direct benefits are guaranteed. However, your contributions will play a crucial role in improving the usability of the application for future users.

Pre-test Demographic Survey and Questions:

1. Age Group:

Please select the option that best describes your age group.

- (a) Under 18
- (b) 18-24
- (c) 25-34
- (d) 35-44
- (e) 45-54
- (f) 55-64

2. Gender:

Please select the option that best describes your gender.

- (a) Male
- (b) Female
- (c) Prefer not to say
- (d) Other (please specify): _____

3. Are you interested in testing this application?

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

4. Do you know the purpose of this application?

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

Test Scenario

Test Scenario 1: Student Account Creation and Login

Scenario Name:

Student Account Creation and Login

Scenario Goal:

To evaluate the app's account creation process for ease of use, intuitiveness, and user friendliness, as well as the login process for returning users.

Scenario Description:

This scenario focuses on a high school student's first interaction with the Green Stormwater Infrastructure app, from account creation to their initial login and exploration of the app. It aims to assess how effectively new users can navigate the registration process, understand the requirements, and begin engaging with the app's content.

Task List:

Accessing the App: The student opens the Green Stormwater Infrastructure app on a mobile device.

Navigating to Account Creation: Chooses the option to create a new account.

Filling Out Registration Form: Enters email, password, school name, and class code. Optionally fills in interests related to GSI.

Submitting the Registration Form: Reviews and submits the form.

Email Verification: Checks email and activates the account via a verification link.

First Login: Logs in with the newly created credentials.

Exploring After Login: Navigates through the app, focusing on educational content and the "Submit GSI Location" page.

Quantitative Measurement List:

- Completion Time: Tracks the duration from account creation initiation to successful login.
- Error Rate: Notes the number and types of errors encountered during the account creation and first login process.

Potential Observations:

- Observations regarding the clarity of instructions and ease of navigation throughout the account creation and login process.
- User reactions and any verbal feedback during the process, noting any points of confusion, frustration, or satisfaction.

Test Setup Details:

- Device Requirements: A mobile device with the latest version of the Green Stormwater Infrastructure app installed.

Test Scenario 2: Uploading a Picture of a GSI Site

Scenario Name:

Uploading a Picture of a GSI Site

Scenario Goal:

To evaluate the app's usability and functionality in allowing users (high school students) to upload pictures of green stormwater infrastructure sites, focusing on the process, requirements, and user support mechanisms for image uploads.

Scenario Description:

This scenario involves a high school student utilizing the Green Stormwater Infrastructure app to upload a picture of a GSI site. It aims to assess the ease of use, the clarity of upload instructions, and the app's support for users during the photo upload process, including compliance with specified image requirements.

Task List:

Login and Navigation: The student logs into the app and navigates to the "Add GSI Location" page.

Accessing Upload Interface: Select the option to add a new GSI location, viewing the photo upload instructions.

Preparing the Image: Ensures the photo meets app requirements (JPEG/PNG format, size $\leq 5\text{MB}$, resolution $\geq 1024 \times 768$ pixels, preferred landscape orientation).

Uploading the Image: Chooses and uploads the prepared image, adding any relevant caption or description.

Submission and Confirmation: Completes the GSI location form and submits the entry, receiving confirmation of successful upload.

Quantitative Measurement List:

- Completion Time: Duration from accessing the upload interface to the successful image submission.
- Error Rate: Number and types of errors encountered during the image upload process.

Potential Observations:

- Observations on the clarity and helpfulness of photo upload instructions and whether the requirements are easily understood and met.
- Student interactions with the upload interface, noting any hesitations, difficulties, or need for corrections.
- Reactions to the confirmation message, indicating satisfaction with the submission process or identifying areas for improvement.

Test Setup Details:

- Device Requirements: Access to a mobile device or computer with internet connectivity and the Green Stormwater Infrastructure app or website.

Test Scenario 3: Moderation and Content Management

Scenario Name:

Moderation and Content Management

Scenario Goal:

To assess the effectiveness and usability of the content moderation functionality within the Green Stormwater Infrastructure app, specifically the ability of teachers or scientists to review, approve, edit, or remove student submissions of GSI locations.

Scenario Description:

This scenario involves a teacher or scientist, acting as a moderator, using the app's specialized moderation features to ensure the quality and appropriateness of content submitted by students. It aims to evaluate the moderation tools provided by the app for ease of use, efficiency, and the ability to maintain a positive and educational environment.

Task List:

Login and Navigation to Moderation Panel: Moderator uses their credentials to access the moderation features of the app and navigates to the moderation section.

Reviewing Submissions: The moderator is presented with a queue of new GSI location submissions for review.

Assessing Submission Quality: Submissions are checked for completeness, accuracy, and appropriateness. The moderator uses provided tools to closely examine photos and verify location coordinates.

Taking Action on Submissions:

- Approval: Suitable submissions are approved and made visible on the public map.
- Editing: Submissions with minor issues are edited for accuracy or completeness, or feedback is sent to the student for corrections.
- Removal: Inappropriate or inaccurate submissions are removed, with an optional step to inform the student of the removal reason.

Quantitative Measurement List:

- Review Time: Duration required for moderators to review each submission and take necessary action.
- Error Rate: Number of submissions needing corrections or removal.
- Moderator Satisfaction: Moderators' perceived ease of use and efficiency of the moderation tools and overall satisfaction with the content management process.

Test Setup Details:

- Participants: Teachers and scientists with roles as moderators in the app.
- Device Requirements: Access to a computer or mobile device with internet connectivity and the latest version of the Green Stormwater Infrastructure app.

Post-test Survey and Questions

1. The application seems user-friendly and easy to navigate.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

2. I believe this application could help increase awareness about green stormwater infrastructure.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

3. I am confident in my ability to contribute data or reports through this application.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

4. The application appears to have features that would engage me to use it regularly.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

5. I feel that the application would provide valuable information that is not easily available elsewhere.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

6. I am concerned about the privacy and security of the data I would share through this application.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

7. I think this application could make a positive impact on local environmental efforts.

- (a) Strongly Agree
- (b) Agree
- (c) Neutral
- (d) Disagree
- (e) Strongly Disagree

Post-Test Interview Questions

Overall Experience:

- How would you describe your overall experience using the app? Was there anything that stood out to you as particularly positive or negative?

Usability:

- Did you encounter any difficulties navigating through the app? If so, could you specify which parts of the app were challenging to use?

Educational Content:

- How informative did you find the educational content about Green Stormwater Infrastructure on the app? Did it enhance your understanding of the topic?

Functionality:

- When adding or viewing a GSI location, did the app meet your expectations in terms of functionality? Were there any tools or features you felt were missing?

Photo Upload Process:

- Could you share your thoughts on the photo upload process? Was the information about size, format, and quality requirements clear and easy to follow?

Moderation and Feedback:

- If you submitted a GSI location, did you receive any feedback or see your submission go through a moderation process? How did you perceive this interaction?

Technical Issues:

- Did you experience any technical issues or bugs during your use of the app? How did these impact your experience?

Improvements:

- Based on your experience, what improvements or additional features would you suggest for the app?

Future Use and Recommendation:

- Would you consider using this app again in the future? Would you recommend it to others interested in environmental conservation or education?

Anonymous Feedback:

- Is there any other feedback or comments you would like to share about your experience that we haven't covered in this interview?

