

Usability Test Report: Campus Sustainability App

1. Introduction

The **Campus Sustainability App** is a platform designed to help university students and staff track, manage, and improve sustainable practices on campus. Users can report energy usage, waste management issues, green initiatives, and participate in sustainability challenges.

2. Users

Three users were recruited for the test. Demographics:

| User | Age | Gender | Occupation | Notes |
|------|-----|--------|-----------------------|--------------------------------------|
| 1 | 20 | Female | Undergraduate Student | Interested in environmental projects |
| 2 | 22 | Male | Undergraduate Student | Uses mobile apps frequently |
| 3 | 24 | Female | Graduate Student | Focus on sustainability research |

3. Tasks

The usability test focused on key tasks typical for the app:

1. **Report a sustainability issue** (e.g., broken recycling bin)
 2. **View campus energy consumption statistics**
 3. **Participate in a sustainability challenge**
 4. **Submit feedback on campus green initiatives**
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4. Method

- **Test Procedure:**
Each user was given 4 tasks to complete. Users were observed individually in a quiet room using the app on their personal smartphones.
 - **Environment:**
University lab with Wi-Fi access and screen recording enabled.
 - **Recording Method:**
Screen recording + note-taking of errors, completion times, and verbal feedback.
 - **Explanation to Users:**
“You will perform a series of tasks on the Campus Sustainability App. Please try to complete the tasks as naturally as possible. Speak aloud your thoughts while using the app. Your feedback will help us improve the system.”
 - **Consent Form:**
Users signed a consent form confirming participation and permission to record their screens.
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5. Results

5.1 Task Completion Status

| Task | User 1 | User 2 | User 3 | Notes |
|-----------------------|---------------------|---------------------|-----------|----------------------------------------------|
| Report issue | Completed | Completed | Completed | Smooth process |
| View statistics | Completed | Partially completed | Completed | User 2 could not locate the statistics graph |
| Participate challenge | Completed | Completed | Completed | Minor confusion about joining |
| Submit feedback | Partially completed | Completed | Completed | User 1 did not find the submit button |

5.2 Error Rate

- **Total errors observed:** 5
- **Most frequent errors:** locating buttons for statistics and feedback submission

5.3 Task Completion Time (seconds)

| Task | User 1 | User 2 | User 3 | Average |
|-----------------------|--------|--------|--------|---------|
| Report issue | 45 | 40 | 50 | 45 |
| View statistics | 60 | 90 | 55 | 68.3 |
| Participate challenge | 70 | 65 | 60 | 65 |
| Submit feedback | 80 | 50 | 55 | 61.6 |

5.4 Satisfaction Questionnaire Results

Scale: 1 (Very dissatisfied) – 5 (Very satisfied)

| User | Ease of Use | Design | Overall Satisfaction |
|------|-------------|--------|----------------------|
| 1 | 4 | 3 | 3 |
| 2 | 3 | 4 | 4 |
| 3 | 5 | 4 | 5 |

6. Conclusion

The usability test identified several issues in the **Campus Sustainability App**:

Problem 1:

- **Description:** Users had difficulty locating the “View Statistics” graph.
- **Source:** Navigation menu unclear; graph button is small and blends with background.
- **UI element:** Statistics page button needs highlighting.

Solution:

- Increase button size, add a bright color, and provide a tooltip “View Campus Energy Stats.”

Problem 2:

- **Description:** “Submit Feedback” button not easily found by some users.
- **Source:** Placed at bottom of a long scrollable page.
- **UI element:** Feedback submission area.

Solution:

- Move the button to the top of the page and use a contrasting color to make it more visible.

Problem 3:

- **Description:** Slight confusion in joining challenges; unclear confirmation.
- **Source:** Lack of confirmation pop-up.
- **UI element:** Challenge join button.

Solution:

- Add a confirmation message: “You have successfully joined the sustainability challenge!”
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Notes for Improvement:

- Use consistent color coding for interactive buttons.
 - Add brief onboarding tutorial for new users.
 - Ensure high-contrast design for better visibility.
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