

Usability Testing Report: BriefBeer Application

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1. Summary

Overall, the testing for BriefBeer was a success. The app ended up with a mean SUS score of 85.8, which is great compared to the standard 68 average. We noticed that Task 1 (the barcode scan) had a bit of a learning curve with a 3.5 ease rating, but after that, users flew through the other tasks with scores hitting 5.0. It seems like once people get the hang of the layout, the app is very straightforward to use.

2. Test Plan & Methodology

The study evaluated how effectively new users could navigate the app, find breweries, view beer details, and utilize the barcode scanning feature.

2.1 Heuristic Evaluation:

We evaluated using Nelsen's 10 rules. We found that with no loading indicator when fetching beers from the database, users thought the app was not working and some icons were unclear, users expected a bar code icon instead of the magnifying glass for scanning beers.

2.2 Hypotheses/testable questions:

H1: Can the users find specific breweries or beers by scanning or browsing on the first attempt?

H2: Can the users understand how to create a new entry that is not in the database without external help

H3: Do users find the barcode scanning feature easier to use than searching for a beer manually?

2.3 Dependent variables:

- Task completion rate
- User errors (wrong screens visited)
- Perceived usability
- Task ease (identify which scenarios we need to improve)

2.4 Data collection:

Tasks: Four structured tasks per participant.

SEQ (Single Ease Question): Measured on a 1–5 scale (1 = difficult, 5 = easy) after each task.

SUS (System Usability Scale): A 10-item questionnaire yielding a 0–100 score for global usability.

Think-aloud comments and post test interview

3. Participant Demographics

Six participants were recruited to represent a mix of novice and experienced users. We recruited 6 participants, 5 men and 1 woman. They were between 18–33 years old. All of them were university students. Their experience ranged from never to weekly beer drinkers; several of them already used a similar application.

4. Quantitative Results

4.1 SEQ Ratings

The following table tracks the perceived difficulty for each task on a scale of 1 (Very Difficult) to 5 (Very Easy).

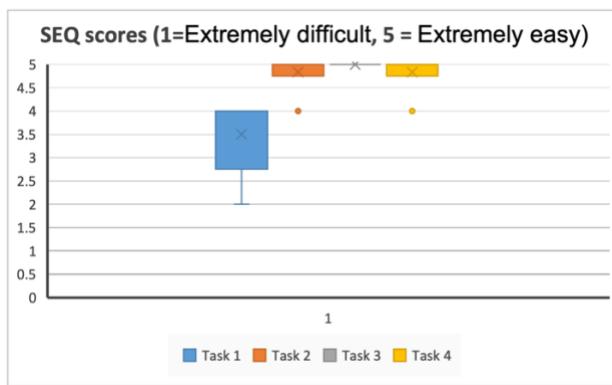


FIGURE 1: SEQ SCORES

Observation: Task 1 presented the most friction. However, the perfect 5.0 mean for Task 3 demonstrates that the core beer detail/viewing logic is exceptionally clear.

4.2 System Usability Scale (SUS)

Our score was 85.8 which is well above 68 is typically considered excellent usability.

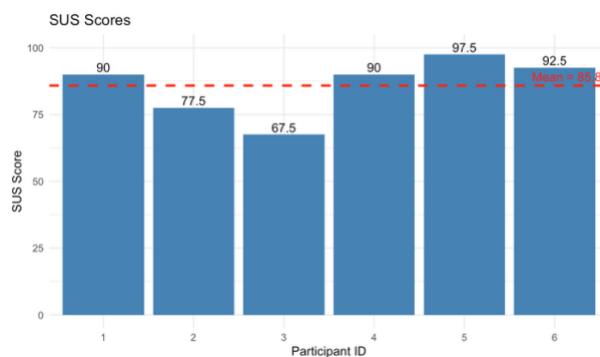


FIGURE 2: SUS SCORES

Participants noted that while brewery search and profile navigation were seamless, the entry point for specific features like barcode scanning was not immediately obvious.

Identified Issues

- **Discoverability:** Users struggled slightly with finding the barcode scanner initially.
- **Icons:** Some icons lacked clear labels, leading to hesitation.
- **Consistency:** Minor variations in list layouts caused brief confusion.

Implemented Improvements

1. **Icon Labeling:** Added text labels to navigation and scanning icons.
2. **Navigation Visibility:** Enhanced the contrast and placement of key navigation elements.

6. Conclusion

BriefBeer meets and exceeds the success criteria for usability SUS > 68 and SEQ > 4 for most tasks. The updates made post-testing specifically target what the users found in Task 1, ensuring a smoother learning curve for future users.

References

- [1] **Experimental Research** (Lazar et al., 2017, p. 25-44)
- [2] Nielsen, J. (1994) **10 Usability Heuristics for User Interface Design.** (Updated Jan. 30, 2024)
- [3] **Standardized Usability Questionnaires** (Sauro & Lewis, 2016, p. 185-248)

5. Qualitative Feedback