# **Chapter 7: Evaluating the System**

System evaluation was carried out through two structured approaches: expert evaluation and user testing with students. These evaluations helped identify bugs, usability issues, and layout optimizations that shaped the final platform.

# **7.1 Expert Evaluation**

An expert in UX design and web development was involved throughout the entire lifecycle of the website development process. The evaluation began during the initial stages, where all core pages were first created and then gradually refined based on expert insights.

Initially, the layout followed a traditional page-by-page navigation model. However, based on expert feedback, this design evolved into a more dynamic structure combined dashboard functionality directly on the main screen. This significantly reduced the need for excessive navigation. The expert provided specific feedback on the positioning of interface elements like the AI avatar and the "Need Assistance" button to improve design symmetry. Suggestions also included minimizing the number of buttons, improving visual hierarchy, and ensuring interactive elements were grouped logically. During the iterative sprints, changes such as button resizing, font adjustments, and repositioning of components were executed. The expert review also addressed visual distractions—for instance, suggesting that any text at the bottom of the avatar be covered by a white button for cleaner appearance. These insights were implemented consistently across development sprints, ensuring a user-friendly and professionally aligned experience by the end of the project.

Common bugs identified during the expert evaluation included:

* **Login page not redirecting** to the correct page post-authentication
* **Dashboard not loading analytics data** correctly from Supabase
* **Contact form** submission issues
* **Incorrect alignment of components** on mobile resolutions

All reported bugs were resolved during the corresponding sprint cycles, following standard debugging processes and ensuring each issue was tracked and retested after fixes were applied.

# **7.2 Student Evaluation**

Following the expert review, eight MSc students participated in user testing to provide feedback from a typical end-user perspective. The evaluation was conducted using the complete platform, with all primary functionalities accessible and fully working. Students tested each module of the website, including login, dashboard interaction, leaderboard viewing, donation transactions, volunteer forms, AI avatar functionality, and category-based activities. Their feedback emphasized several key strengths of the platform:

* The site was **simple and intuitive to use**
* **Navigation was straightforward**, with minimal clicks needed to reach core features
* The **color scheme** and layout choices were visually appealing
* The **dashboard integration into the homepage** made the platform feel less cluttered and more engaging

It is important to note that by the time of student evaluation, most of the UI and UX refinements had already been implemented based on the expert's feedback. As such, student’s suggestions primarily led to small enhancements—such as better alignment, resizing of buttons, and font clarity improvements. No major structural or functional changes were necessary after this round of feedback.

The combined input from the expert and student evaluations helped ensure the platform met both usability standards and end-user expectations, delivering a refined and effective solution for promoting sustainable action.

**Bug Tracking and Resolution Table:**

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| --- | --- | --- | --- | --- |
| Bug ID | Description | Source of Feedback | Status | Resolution/Action Taken |
| B01 | Avatar covered other elements | Expert Review | Resolved | Repositioned avatar and added overlay to hide unwanted text |
| B02 | Too many navigation buttons | Student Feedback | Resolved | Dashboard was merged into homepage with cleaner layout |
| B03 | “Need Assistance” button hard to locate | Expert Review | Resolved | Moved button next to leaderboard for visual balance |
| B04 | Fonts too small on some screens | Student Feedback | Resolved | Increased font sizes across sections |
| B05 | Confusing dashboard structure | Student Feedback | Resolved | Consolidated features under a single dashboard screen |
| B06 | Contact form not submitting | Internal Testing | Resolved | Fixed backend API integration |
| B07 | Donation record not reflecting immediately | Internal Testing | Resolved | Adjusted database trigger to refresh on submit |
| B08 | Activity Recommendation delay | Internal Testing | Resolved | Optimized Q-learning fetch response |