Usability Testing Report for MES-ERP

1. Introduction

This report details the methodology, execution, and findings of the formal usability testing conducted for the MES-ERP platform. The objective was to evaluate the ease of use, efficiency, and user satisfaction for core system tasks, ensuring the platform meets the usability requirements specified.

2. Methodology

- **Participants:** 8 participants were recruited (Undergrad students)
- **Environment:** Testing was conducted remotely via screen sharing sessions, using the latest build deployed to the staging environment. Participants used their own devices (mix of Windows and macOS laptops) and standard browsers (Chrome, Firefox).
- **Tasks:** Participants were asked to complete the following core tasks using a think-aloud protocol, where they verbalized their thoughts while performing the actions:
  - **Task 1 (Submit Request):** Log in and submit a typical reimbursement request for $75 for "Team Event Catering", including uploading a sample receipt image.
  - **Task 2 (Track Request):** Find the request submitted in Task 1 and identify its current status.
  - **Task 3 (Admin - Approve Request):** (Administrators only) Find a specific pending request (ID provided) and approve it.
  - **Task 4 (Update Account):** Navigate to the account information page and update their preferred payment method to "E-Transfer".
- **Data Collection:**
  - Task completion times were recorded.
  - Successful task completion (yes/no, with/without assistance) was noted.
  - Observations on user behaviour, points of confusion, and verbal feedback were recorded.
  - Post-session usability survey (based on the checklist planned in the VnV Plan) was administered using a 1-5 Likert scale (1=Very Difficult/Dissatisfied, 5=Very Easy/Satisfied).

3. Usability Survey Checklist (Sample Questions)

1. **Overall Ease of Use:** How easy was it to use the platform overall? (1-5)
2. **Navigation:** How easy was it to find the pages you needed (Login, Submit Form, Requests, Account Info)? (1-5)

3. **Task 1 (Submit Request):** How easy was it to complete the reimbursement submission form? (1-5)
4. **Task 2 (Track Request):** How easy was it to find the status of your submitted request? (1-5)
5. **Task 3 (Approve Request - Admins):** How easy was the process to review and approve a request? (1-5)
6. **Task 4 (Update Account):** How easy was it to find and update your account information? (1-5)
7. **Clarity of Labels/Instructions:** Were the labels, buttons, and instructions on the platform clear? (1-5)
8. **Error Handling:** (If encountered) Were error messages (if any) helpful in resolving issues? (1-5 / N/A)
9. **Overall Satisfaction:** How satisfied were you with your experience using the platform today? (1-5)
10. **Open Feedback:** What did you like most about the platform? What did you find most confusing or frustrating? Any suggestions for improvement?

4. Quantitative Results

Task	Avg. Completion Rate	Avg. Time (seconds)	Avg. Ease of Use (1-5)	Avg. Satisfaction (1-5)
Overall	96.9%	52.5	4.1	4.3
1: Submit Request	87.5% (7/8)	72	3.9	-
2: Track Request Status	100% (8/8)	38	4.5	-
3: Approve Request (Admins)	100% (2/2)	45 sec	4.0	-

4: Update Account Info	100% (8/8)	55	4.3	-

5. Qualitative Findings & Observations

- **Positive Feedback:**
  - Most users found the dashboard layout intuitive and navigation straightforward.
  - The status tracking on the "Requests" page was highly praised for its clarity.
  - Admins appreciated the simple status dropdown for managing approvals.
  - Success confirmation messages after submissions were well-received.
- **Areas of Confusion/Frustration:**
  - **Receipt OCR:** 3 out of 8 users were initially unsure if the OCR had worked correctly or how to manually override the extracted amount if needed. The processing indicator was sometimes missed.
  - **Form Length:** Some users felt the reimbursement form was long, although they understood the need for the detailed fields.
  - **Payment Method Details:** 1 user found the conditional fields for E-Transfer vs. Direct Deposit slightly cluttered.
- **Suggestions for Improvement:**
  - Make the OCR amount field more obviously editable after processing.
  - Add helper text clarifying which group to select for different expense types.
  - Consider breaking the long form into steps or using collapsible sections.
  - Slightly visually separate the payment method detail sections (E-transfer, Direct Deposit, Cheque).

6. Accessibility Check (Basic)

- **High Contrast Mode:** Tested the existing theme toggle. Text and UI elements remained readable in dark mode. (Aligns with AODA goals and NFR plan).
- **Keyboard Navigation:** Basic keyboard navigation (Tab, Enter) was functional for most forms and buttons. Further testing with screen readers is recommended.

7. Resulting Actions & Integration

Based on the usability testing findings, the following improvements were implemented/planned:

1. **Implemented:** Added clearer visual feedback after OCR processing (showing the extracted amount prominently) and made the amount field clearly editable. (Addresses OCR confusion).
2. **Implemented:** Updated labels in the payment method details section for better clarity and visual separation. (Addresses payment method clutter).
3. **Potential Future Feature:** Evaluate breaking the main reimbursement form into a multi-step process or using accordions to manage length without removing fields. (Addresses form length feedback).
4. **Potential Future Feature:** Conduct dedicated accessibility testing using screen readers and WCAG guidelines.

8. Conclusion

The formal usability testing confirmed that the MES-ERP platform is generally intuitive and efficient for core tasks. Users were able to complete primary workflows successfully with minimal assistance. Key areas for improvement related to the OCR feedback and form layout were identified, and actionable changes have been implemented or planned. The results demonstrate a strong alignment with usability goals, and the findings have been directly integrated into the development process.