

Optimizing Verbena's User Experience: Insights from Heuristic Analysis and Cognitive Walkthrough

Jinu Mathew Valayil, PhD¹; Vandana Yadav, MS¹; Stan Kachnowski, PhD, MPA¹

¹Healthcare Innovation and Technology Lab (HITLAB)



ABSTRACT

Women have specific health needs that are often underserved by existing healthcare systems. Balancing their multifaceted roles in family and professional life, women tend to sideline their overall well-being and self-care. Societal obstacles like unequal power dynamics, limited educational and job opportunities, emphasis on reproductive roles, and instances of violence further impede women's access to quality healthcare. Addressing these challenges, Verbena has emerged as innovative solution, offering comprehensive digital care and telemedicine services specifically designed for women. By facilitating connections with personal doctors anytime, anywhere, Verbena strives to narrow the gap in women's healthcare, ensuring convenient and accessible healthcare solutions.

To refine Verbena's user experience, HITLAB conducted a usability analysis combining cognitive walkthrough and heuristic evaluation techniques. Through cognitive walkthroughs, evaluators simulated the thought processes of typical end users interacting with the platform, uncovering cognitive barriers and user experiences. Meanwhile, heuristic evaluation assessed the interface against Nielsen's 10 usability heuristics, identifying areas for improvement within the platform. This study revealed that employing heuristic evaluation and cognitive walkthroughs together provides comprehensive coverage of various usability attributes, ensuring a user-friendly experience for the end users.

OBJECTIVES

- Assess the user experience and learnability of Verbena's platform through a task-oriented cognitive walkthrough.
- Identify usability issues within Verbena's patient interface by assessing its compliance with established heuristic principles.
- Derive actionable insights to refine Verbena platform, with the aim of enhancing user experience.

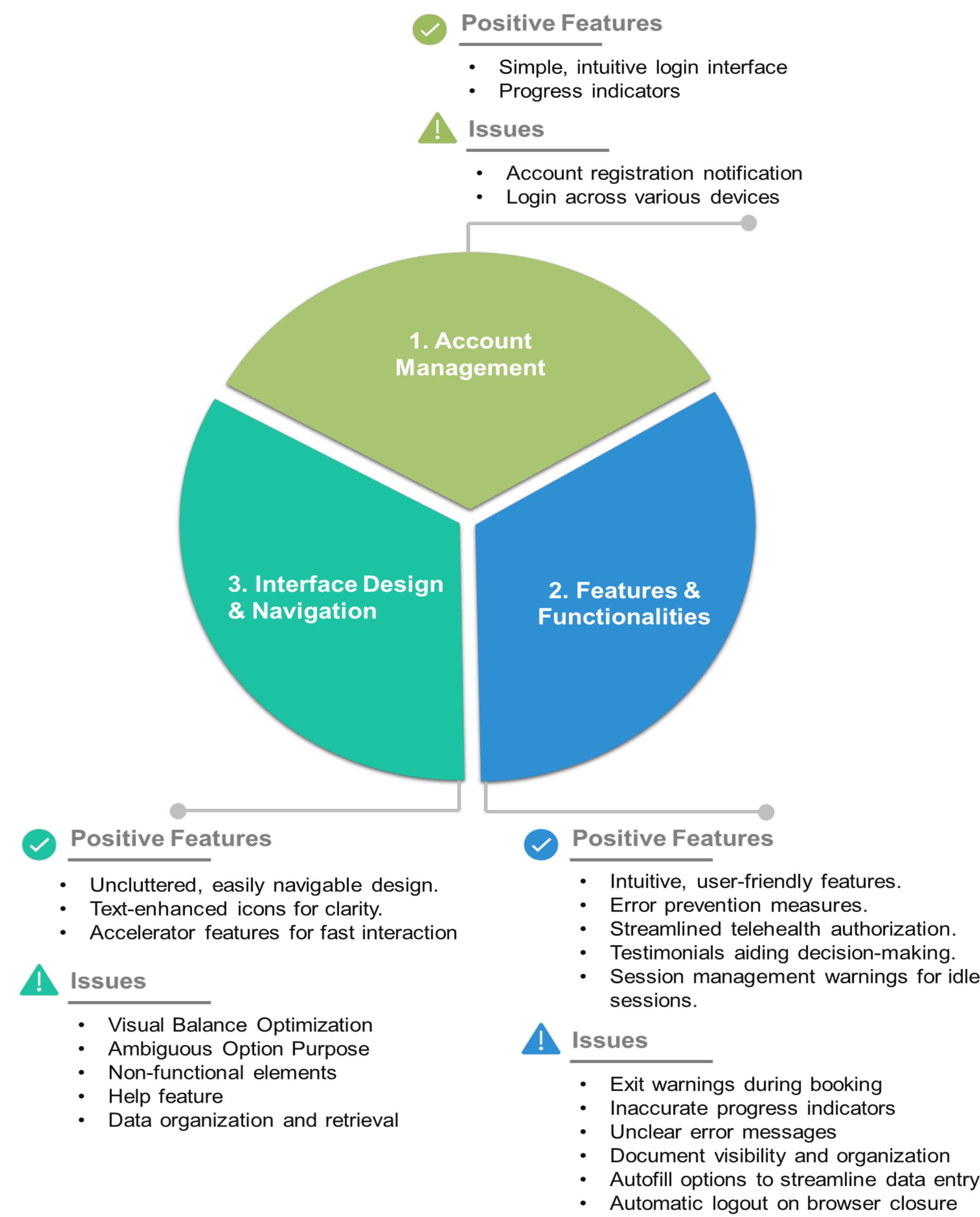
STUDY METHODOLOGY

- Formulated key evaluation objectives aligned with the intended purpose of the interface and the expectations of the target audience.
- Two independent researchers conducted evaluations of the Verbena platform to assess its usability.
- A user persona that reflects the target user demographics and behaviors was developed.
- The researchers evaluated and identified cognitive problems and task-related challenges encountered by users through cognitive walk through.
- The usability of the Verbena platform was assessed using Jakob Nielsen's interaction design heuristics.
- Interface issues were ranked based on their severity, taking into account the frequency, impact, and persistence of problems.

RESULTS

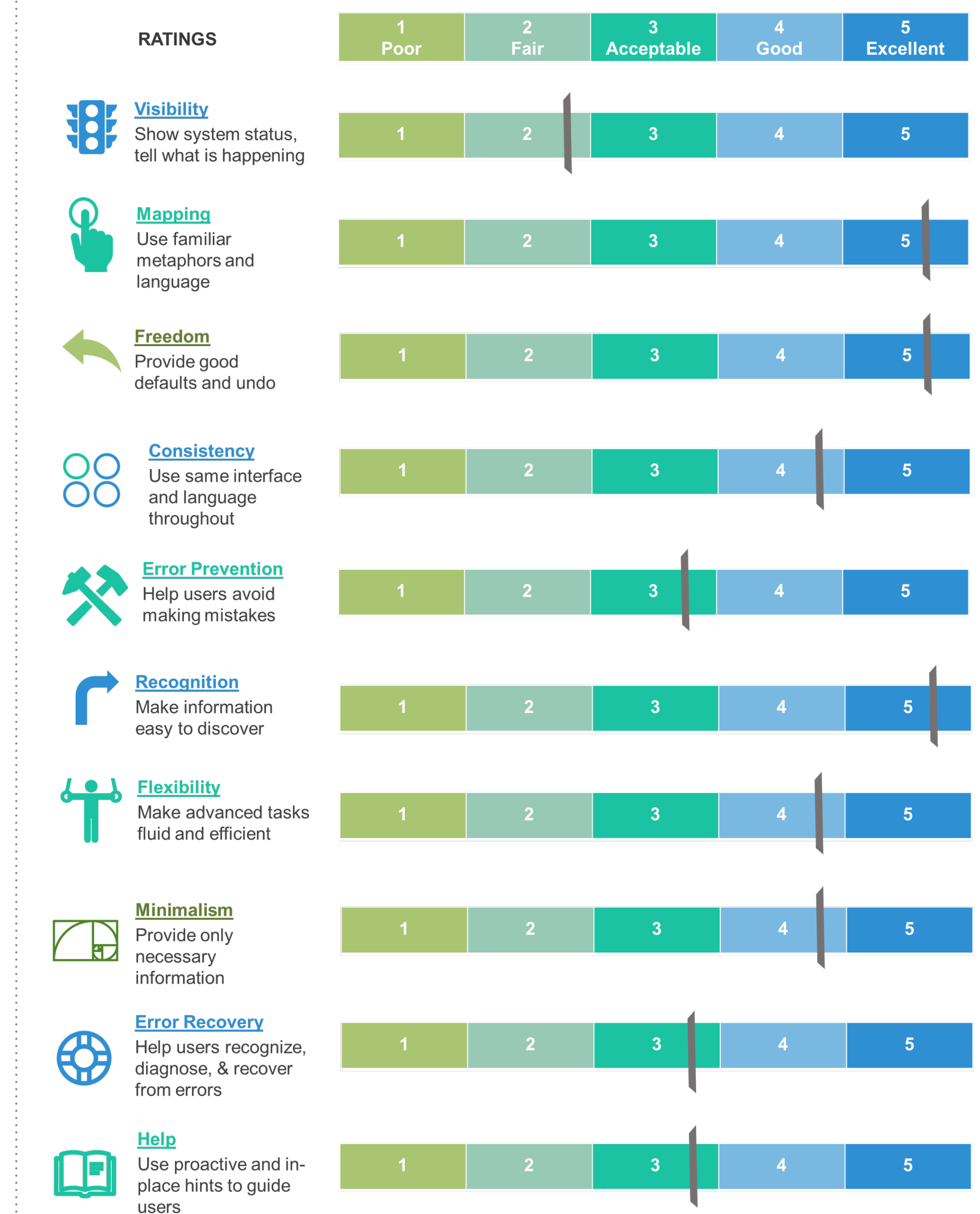
Cognitive Walk-through

- Cognitive walkthrough assessed the platform across three key areas, outlined below.

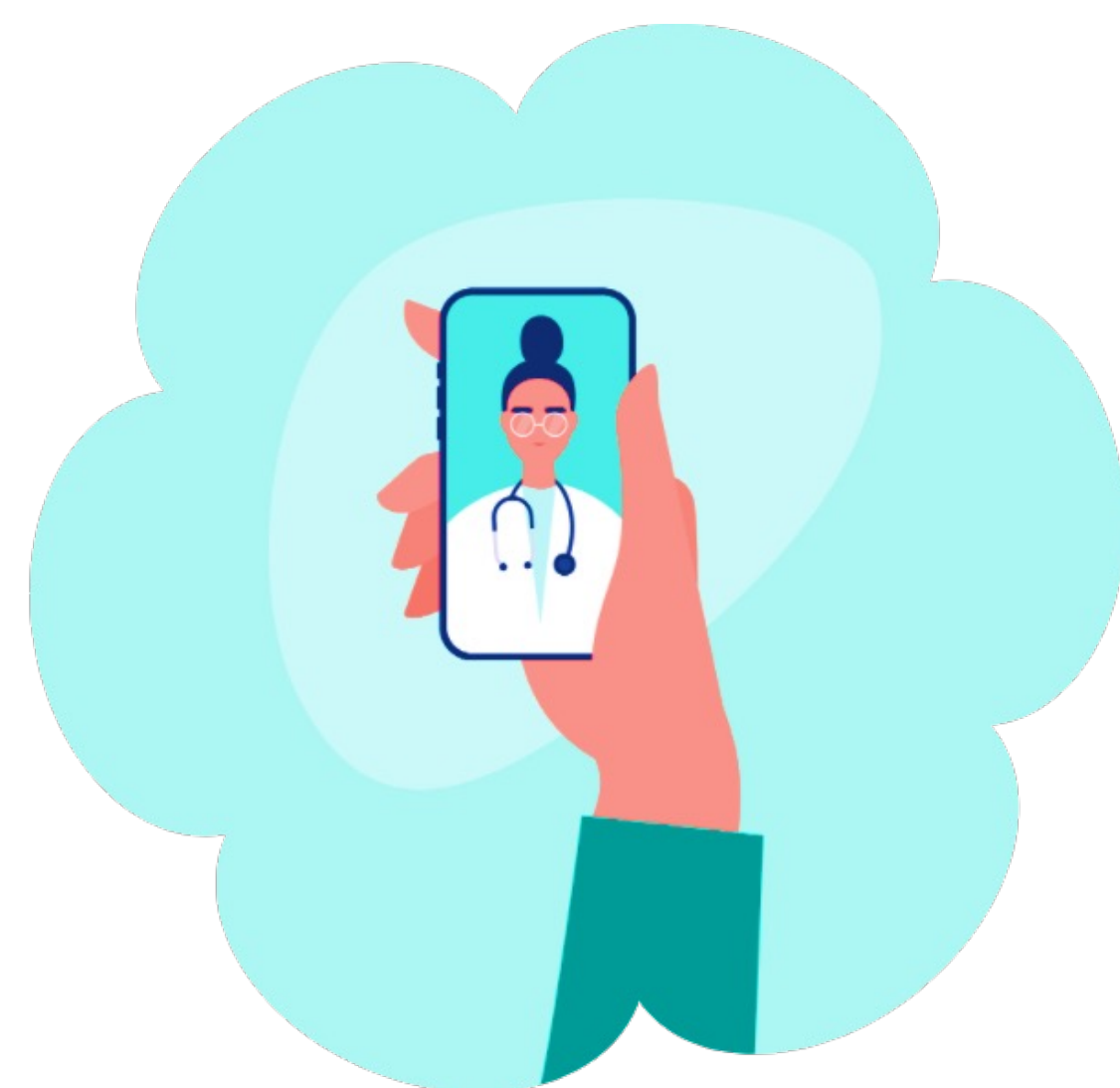


Heuristic Evaluation

- An evaluation of the platform against Jakob Nielsen's ten usability heuristics identified problems that were ranked based on their severity, importance, and prevalence.



Verbena - For a Woman's Needs at Every Stage



What is Verbena?

Verbena is a comprehensive digital care platform for women, fostering convenient connections between patients and their doctors, anytime and anywhere.

By enabling video conferencing, Verbena replaces traditional in-person visits with a more personalized and accessible healthcare approach, ensuring timely care without disrupting patients' daily routines.

Key Focus Areas

Verbena specializes in adolescent and young adult health, reproductive health, obstetrics, postpartum care, sexual health, and menopausal health, covering a broad spectrum of women's healthcare needs.

What does Verbena Offer?

- **Digital Access & Telehealth Visits:**
Connect with our doctors securely for consultations and treatments. The platform is HIPPA compliant and securely stores all patient data.
- **Prescription Renewal:**
Verbena's doctors can renew prescriptions online, saving patients time and hassle.
- **Evaluations, Assessments & Lab Coordination:**
Track your health progress and order tests through our doctor-led evaluations.
- **Health Education:**
Access educational resources on diverse health topics.



User Experience Insights

Intuitive Experience:

- The platform offers a straightforward and user-friendly experience, setting a positive tone for user interactions.

Design Clarity and Navigational Aid:

- Emphasis on simplicity and clarity in design elements contributes to easier navigation and understanding for users.

Usability Challenges:

- Minor usability challenges, such as the lack of account creation confirmation, unclear functionalities, non-functional elements, and absence of help features, may lead to user confusion.

Document Visibility and Organization Impact:

- Issues regarding document visibility and organization could impact accessibility and the ease of retrieving essential information for users.

CONCLUSIONS

- **Verbena's Potential for Revolutionizing Women's Healthcare:** Verbena offers a convenient, accessible personalized platform that integrates seamlessly into women's busy lives and empowers them to take control of their health.
- **Platform Strengths and Improvement Areas:** User-friendly interface facilitates easy navigation and information access. Enhancement opportunities include refining progress indicators, implementing help features, streamlining data entry with auto-fill, and improving document organization. Addressing these areas will further enhance the user experience.
- **Methodological Importance:** The study demonstrates the value of a combinatorial approach of heuristic evaluation and cognitive walkthroughs in ensuring comprehensive coverage of usability issues. Cognitive walkthroughs identified learnability issues and user experiences, while heuristic evaluations pinpointed broader usability problems.