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User Experience Evaluation of the SEKAWAN V3 Website Using the User Experience Questionnaire (UEQ)

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Abstract−The SEKAWAN V3 website is used as a thesis management system in the Informatics Study Program at Universitas Islam Indonesia. However, preliminary observations indicate usability issues affecting user interaction. This study aims to assess the user experience of SEKAWAN V3 and analyze the impact of a UI/UX redesign based on user feedback. The study applies the User Experience Questionnaire (UEQ) supported by open-ended responses. A total of 23 participants were involved, with 17 valid responses in the initial evaluation and 22 valid responses in the re-evaluation after data consistency filtering. The initial results reveal issues related to navigation clarity, feature understanding, and interface structure. Based on these findings, a redesigned prototype was developed and evaluated. The results indicate improvements across all UEQ dimensions, particularly in stimulation, attractiveness, and perspicuity, suggesting better engagement, visual appeal, and ease of use. Qualitative findings support these results, showing that users perceive the system as clearer, more structured, and more intuitive. This study demonstrates that combining quantitative and qualitative approaches can support data-driven improvements in system design.

Keywords: User Experience; UI/UX Redesign; User Experience Questionnaire; Usability Evaluation; Thesis Management System

1. INTRODUCTION

In the modern era, the rapid evolution of digital technology has significantly influenced various sectors, including higher education [1], [2]. This transformation has encouraged universities to adopt web-based information systems to support academic activities, improve administrative efficiency, and enhance communication among stakeholders [3]. The integration of digital systems into academic environments enables institutions to streamline processes, manage data more effectively, and provide better services to users [4]. One important implementation of such systems is the development of thesis management platforms, which are designed to facilitate supervision, submission, evaluation, and monitoring of students' final projects in a structured and integrated manner. These systems are expected to improve coordination between students, supervisors, and administrators, thereby increasing the overall efficiency of academic processes.

Despite the widespread adoption of web-based academic systems, challenges related to User Experience (UX) remain a critical issue in ensuring effective system utilization. UX plays an essential role in determining how users perceive, interact with, and respond to a system, which directly affects usability, efficiency, and user satisfaction [5]. A system with poor UX may lead to confusion, increased cognitive load, and reduced productivity, ultimately affecting the success of system implementation [6]. In the context of thesis management systems, students as the primary users often encounter usability issues such as complex navigation structures, unclear task flows, inconsistent interface design, and lack of feedback mechanisms [7], [8]. These issues can hinder task completion, increase user frustration, and reduce the overall effectiveness of the system. Therefore, conducting a systematic UX evaluation is essential to identify usability problems and provide recommendations for improvement [9], [10], [11].

In the Informatics Study Program of Universitas Islam Indonesia (UII), the SEKAWAN V3 website is used as a thesis management platform that integrates various academic processes. Although the system has been implemented to support students in managing their final projects, preliminary observations indicate that there are still several usability-related issues experienced by users. Students report difficulties in understanding system navigation, locating specific features, and completing tasks efficiently [12]. These findings suggest that the current system may not fully meet user needs, highlighting the necessity for a comprehensive UX evaluation. Such evaluation is important not only to identify usability problems but also to provide insights for improving the system through a more user-oriented design approach.

Previous studies on usability and User Experience (UX) evaluation have applied various approaches across different system contexts. A study on the redesign of the M-Paspor application using Design Thinking showed a significant improvement in usability, with the System Usability Scale (SUS) score increasing from 28.5 to 81.4 after redesign [13]. Other research combining User-Centered Design (UCD) and User Experience Questionnaire (UEQ) demonstrated that involving users in the design process can improve system effectiveness, accessibility, and user satisfaction [14].

A study conducted on the STT Wastukancana website evaluated usability using the Cognitive Walkthrough and System Usability Scale (SUS) methods. The evaluation results show high usability performance, with learnability and effectiveness reaching 96%, efficiency measured at 0.07 seconds, and a satisfaction score of 86.25, which falls into the "acceptable" category [15]. These findings indicate that the system is generally easy to learn and effective to use. However, the study also identified several usability issues and provided recommendations such as improving interface layout, adding search features, and enhancing content quality. This suggests that even systems with high usability scores may still require further refinement to optimize user experience.

A study on a mobile e-surat application evaluated usability by comparing the old and redesigned UI/UX using the User Experience Questionnaire (UEQ) and prototype testing. The results show that the redesigned version achieved higher

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scores across all UEQ dimensions, with most aspects reaching the "excellent" category, indicating a significant improvement in user experience compared to the previous version [16]. However, the prototype testing results revealed a usability score of 50 (moderate level), suggesting that although the redesign improves user perception, further refinements are still required to enhance usability performance in real interaction scenarios.

A recent study applied the Design Thinking approach to redesign the UI/UX of the BCA Mobile application, integrating UEQ as the primary evaluation tool. The findings reveal that the initial system received consistently negative scores across all UX dimensions, indicating issues such as low clarity, weak visual appeal, and poor user engagement. After the redesign process, a substantial improvement was observed, with all dimensions shifting to highly positive scores, particularly in perspicuity and stimulation, reflecting better usability and a more engaging interface [17]. This suggests that a structured, user-oriented design process can effectively transform both functional and emotional aspects of user experience. However, the study mainly focuses on prototype-based evaluation and short-term user perception, leaving room for further investigation in real-world implementation contexts.

Despite the contributions of previous studies, several limitations can still be identified. Most prior research primarily emphasizes either the redesign process using approaches such as Design Thinking and UCD or the evaluation of usability using a single method such as SUS or UEQ. As a result, the integration between problem identification, design improvement, and evaluation is often not comprehensively addressed. In addition, although some studies have conducted redesign and evaluation, they are generally limited to prototype-based testing and do not provide a detailed comparative analysis of user experience before and after improvement. Furthermore, several studies highlight usability improvements but do not fully explore underlying user problems through qualitative insights, which may limit the depth of analysis. These limitations indicate the need for a more holistic approach that combines usability evaluation, qualitative analysis, and iterative design validation.

Based on these gaps, this study aims to evaluate the user experience of the SEKAWAN V3 website to identify usability issues and analyze the impact of a UI/UX redesign on improving user experience. The evaluation is conducted using quantitative methods supported by qualitative insights derived from open-ended responses. The findings are expected to provide both practical and academic contributions to improving user experience in academic information systems.

2. RESEARCH METHODOLOGY

2.1 Research Stages

This study adopts a structured approach to evaluate and improve the user experience of the SEKAWAN V3 website. The research is conducted through several stages, starting from problem identification to the formulation of conclusions and recommendations. Each stage is designed to systematically identify usability issues, propose design improvements, and assess changes in user experience after the redesign.

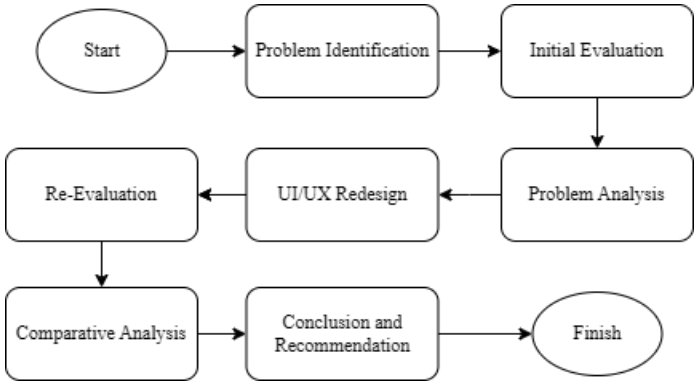

Figure 1. Research Stages of UX Evaluation

As illustrated in Figure 1, the research consists of several main stages, including problem identification, initial evaluation, problem analysis, UI/UX redesign, re-evaluation, comparative analysis, and conclusion and recommendations. These stages are carried out sequentially to ensure a systematic process in evaluating and improving user experience.

2.2 Data Collection

Data collection in this study was conducted through the distribution of questionnaires to respondents. The questionnaire consists of two main components: the User Experience Questionnaire (UEQ) and open-ended questions. The UEQ is used to collect quantitative data regarding users' perceptions of the system, while the open-ended questions are used to obtain qualitative insights related to user experience, including usability, functionality, and interface design. The questionnaires were distributed to respondents who met the predefined criteria. Before completing the questionnaire, respondents were required to perform a series of predefined task scenarios to ensure that their responses reflect actual interaction with the

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system. This approach enables the collection of both quantitative and qualitative data, providing comprehensive insights into the user experience of the SEKAWAN V3 website.

Table 1. List of Task Scenario

No.	Initial Evaluation	Re-Evaluation
1	Silakan unggah berkas penelitian bab 3	Silakan unggah berkas penelitian bab 4.
2	Silakan isi Logbook bimbingan dengan isian: a. Kegiatan/Aktivitas: Pengujian b. Tanggal: (Tanggal saat ini) c. Catatan: Pengujian user experience website Sekawan V3	Silakan tambah logbook.
3	Silakan lakukan eksplorasi minimal salah satu fitur pada sekawan.	Lakukan eksplorasi pada desain prototype Sekawan V3.

2.3 Respondent

This study involved 23 respondents, which is considered sufficient based on User Experience Questionnaire (UEQ) guidelines recommending 20–30 participants for reliable results [6], [18]. Participants were selected based on specific criteria: Informatics students at Universitas Islam Indonesia (UII) who are currently working on their final project. This ensures they have relevant experience with the SEKAWAN V3 system and can provide meaningful feedback on their user experience.

2.4 Implementation of the UEQ Method

The User Experience Questionnaire (UEQ) is applied in this study to evaluate the user experience of the SEKAWAN V3 website in both initial evaluation and re-evaluation stages. The UEQ is a standardized instrument designed to measure users' perceptions of interactive products across six dimensions, namely attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. In the initial evaluation stage, the UEQ is used to assess the initial user experience prior to any system improvements. Before completing the questionnaire, respondents are required to perform a series of predefined task scenarios to ensure sufficient interaction with the system. This procedure is important to ensure that the responses reflect actual user experience rather than subjective assumptions. After completing the tasks, respondents evaluate the system by answering 26 UEQ items using a 7-point semantic differential scale. Prior to data analysis, a consistency check is conducted to identify and eliminate inconsistent responses, as recommended in the UEQ data analysis guidelines. Responses that exhibit inconsistent patterns are excluded from further analysis to ensure the reliability and validity of the results. The remaining valid data are then transformed into numerical values ranging from -3 to +3. Subsequently, the mean values for each UEQ dimension are calculated to determine the overall user experience [19]. The results are interpreted using standard UEQ benchmark intervals to classify the evaluation into categories such as positive, neutral, or negative.

The findings from the initial evaluation are used to identify usability issues and guide the redesign process. In the re-evaluation stage, the same procedure is repeated to assess changes in user experience after the implementation of the redesign. By applying the same instrument and procedure in both stages, consistency is maintained, allowing for a direct comparison of results.

2.5 Open Ended Questions

In addition to the User Experience Questionnaire (UEQ), this study uses open-ended questions to collect qualitative data. These questions are designed to support the UEQ results by exploring users' experiences related to usability, functionality, and interface design. The questions were originally written in Bahasa Indonesia to ensure better understanding among respondents. Table 2 presents the list of open-ended questions used in both the initial evaluation and re-evaluation stages.

Table 2. List of Open-Ended Questions

No.	Initial Evaluation	Re-Evaluation
1	Bagaimana pengalaman Anda secara keseluruhan saat menggunakan website Sekawan V3?	Bagaimana pengalaman Anda secara keseluruhan saat menggunakan prototipe redesain Sekawan V3 ini?
2	Bagaimana pendapat Anda tentang tampilan dan desain visual website Sekawan V3?	Bagaimana pendapat Anda tentang tampilan dan desain visual prototipe redesain Sekawan V3?
3	Bagaimana pendapat Anda tentang fungsional fitur yang dimiliki oleh website Sekawan V3?	Bagaimana pendapat Anda tentang fungsional alur yang dimiliki oleh prototipe redesain Sekawan V3?
4	Menurut Anda, seberapa mudahkah penggunaan website Sekawan V3? Berikan masukan Anda agar website tersebut menjadi lebih user-friendly.	Menurut Anda, seberapa mudahkah penggunaan prototipe redesain Sekawan V3? Apabila dibandingkan dengan website Sekawan V3, bagaimana pendapat Anda?
5	Apa masalah atau kendala yang paling sering Anda temui saat menggunakan website ini?	Apakah prototype redesain Sekawan v3 ini sudah mengakomodasi perbaikan kendala yang Anda

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No.	Initial Evaluation	Re-Evaluation
		sampaikan pada pengujian sebelumnya terhadap Sekawan v3?
6	Menurut Anda, adakah fitur atau fungsi yang seharusnya ada di website ini baik untuk membuat pengalaman Anda lebih baik ataupun secara fungsional dalam penjaluran Anda?	Secara umum, apa saran Anda pada prototipe redesain Sekawan V3 ini?
7	Secara umum, apa saran Anda untuk perbaikan terhadap website Sekawan V3?	

2.6 Data Analysis

The collected data in this study are analyzed using both quantitative and qualitative approaches. The quantitative data obtained from the User Experience Questionnaire (UEQ) are analyzed by calculating the mean values for each dimension, namely attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. The analysis is performed using the official UEQ Data Analysis Tool to ensure accuracy, consistency, and standardized interpretation of the results. The results are interpreted based on UEQ standards, where values above 0.8 indicate a positive evaluation, values between -0.8 and 0.8 indicate a neutral evaluation, and values below -0.8 indicate a negative evaluation [20]. Furthermore, the results of the initial evaluation and re-evaluation are compared to analyze changes in user experience after the implementation of the UI/UX redesign. This comparison is conducted by examining the differences in mean scores across all UEQ dimensions to identify improvements in user perception. The qualitative data obtained from the open-ended questions are analyzed using a categorization approach. The responses are grouped based on recurring themes, such as usability issues, system performance, interface design, and user suggestions. This analysis provides additional insights that support the interpretation of the quantitative results.

2.7 UI/UX Redesign

The UI/UX redesign stage aims to improve the SEKAWAN V3 website based on the findings from the previous stages. The redesign is guided by quantitative results from the User Experience Questionnaire (UEQ) and qualitative insights from open-ended responses to identify key issues. The improvements focus on addressing key usability issues identified in the previous stage, particularly those related to navigation, interface design, and feature functionality. The proposed solutions include improving navigation clarity, enhancing layout consistency, increasing information clarity, and refining the overall interface design. These improvements are implemented through the creation of a high-fidelity prototype using Figma. The result of this stage is a prototype of the improved system, which is used for further evaluation in the re-evaluation stage.

2.8 Comparative Analysis

The comparative analysis stage evaluates changes in user experience between the initial evaluation and the re-evaluation results after the implementation of the UI/UX redesign of the SEKAWAN V3 website. The comparison is based on both quantitative and qualitative data. Quantitative analysis is conducted using the mean scores of each User Experience Questionnaire (UEQ) dimension to identify improvements across dimensions. In addition, qualitative responses are analyzed to compare user perceptions before and after the redesign. This analysis aims to determine how the redesign influences user experience and whether the identified usability issues are addressed.

3. RESULT AND DISCUSSION

3.1 Initial Evaluation Result

The initial evaluation was conducted to assess the baseline user experience of the SEKAWAN V3 website prior to the implementation of the UI/UX redesign. A total of 23 respondents participated in the evaluation using the User Experience Questionnaire (UEQ). However, after performing a consistency check, several responses were identified as inconsistent and were excluded from the analysis. As a result, only 17 valid responses were used for further analysis. The results of the initial evaluation in terms of mean and variance are presented in Table 1.

Table 3. UEQ Initial Evaluation Mean and Variance

UEQ Scales (Mean and Variance)		
Attractiveness	1,049	1,50
Perspicuity	1,221	1,21
Efficiency	1,324	1,14
Dependability	1,176	1,00
Stimulation	0,752	1,88
Novelty	0,132	2,29

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Based on the results presented in Table 3, the efficiency dimension achieved the highest mean score of 1.324, followed by perspicuity with a mean of 1.221, dependability at 1.176, and attractiveness at 1.049. These results indicate that users generally perceive the system as efficient, easy to understand, and relatively reliable, with an acceptable level of visual appeal. On the other hand, the stimulation and novelty dimensions obtained lower mean scores of 0.752 and 0.132, respectively. This suggests that the system is perceived as less engaging and lacks innovative or exciting elements from the users' perspective. In addition, the overall quality of the system is evaluated based on pragmatic and hedonic aspects, as presented in Table 4.

Table 4. Pragmatic and Hedonic Quality

Pragmatic and Hedonic Quality	
Attractiveness	1,05
Pragmatic Quality	1,24
Hedonic Quality	0,44

The results presented in Table 4 show that the pragmatic quality achieved a mean score of 1.24, indicating a positive evaluation in terms of usability aspects such as efficiency, perspicuity, and dependability. This suggests that users perceive the system as functional and relatively easy to use. In contrast, the hedonic quality obtained a lower mean score of 0.44, which falls within the neutral range. This indicates that the system still lacks elements related to user engagement, excitement, and innovation. Meanwhile, the overall attractiveness score of 1.05 reflects a generally positive perception of the system, suggesting that users find it acceptable and somewhat appealing, although there is still room for improvement.

To provide a clearer interpretation, the UEQ mean scores are compared with the standard UEQ benchmark dataset. The results are presented in Table 5.

Table 5. UEQ Benchmark Result

Scale	Mean	Comparison to benchmark
Attractiveness	1,05	Below average
Perspicuity	1,22	Above average
Efficiency	1,32	Above average
Dependability	1,18	Above average
Stimulation	0,75	Below average
Novelty	0,13	Bad

The results in Table 3 indicate that efficiency (1.32), perspicuity (1.22), and dependability (1.18) are categorized as above average, showing that the system performs well in terms of usability, clarity, and reliability compared to benchmark data. In contrast, attractiveness (1.05) and stimulation (0.75) fall into the below average category, suggesting that the system is still less appealing and engaging than comparable products. Meanwhile, novelty (0.13) is rated as bad, indicating a lack of innovation. Overall, the system demonstrates strong pragmatic quality but still needs improvement in hedonic aspects to provide a more engaging user experience.

3.2 Problem Analysis

The problem analysis stage was conducted by integrating the quantitative results from the User Experience Questionnaire (UEQ) with qualitative findings from open-ended responses. The qualitative responses were synthesized into several global problem categories by grouping similar issues identified across all responses. The frequency of each identified problem was calculated based on the number of mentions across all responses. It should be noted that a single respondent may contribute multiple mentions of the same issue across different questions; therefore, the frequency values reflect the prominence of issues rather than the number of unique respondents. The results of this analysis are presented in Table 6.

Table 6. Summary of Identified Problems from Open-Ended Questions

Global Problem Category	Number of mentions	Example Response	UEQ Dimension
Usability & Clarity Issues	13	"cukup membingungkan di awal","butuh panduan".	Perspicuity
System Reliability Issues	11	"terdapat bug saat memasukkan draft","tombol help tidak bisa dipencet"	Dependability
Visual Design Issues	10	"terlalu monoton","kurang atraktif"	Attractiveness
Inneficient Task Flow	8	"perlu klik berkali-kali saat upload"	Efficiency
Low Engagement & Interactivity	4	"biasa aja", "monoton"	Stimulation
Lack of Innovation & Modern Features	16	"perlu gamifikasi", "fitur lebih modern", "fitur notifikasi"	Novelty

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Table 6 presents the summary of identified problems derived from the qualitative analysis of open-ended responses. The results indicate that Lack of Innovation and Modern Features is the most frequently mentioned category (16 mentions), reflecting diverse user expectations for features such as gamification and notifications. However, because these responses consist of varied feature requests rather than a single dominant usability flaw, this category was not prioritized as the main focus for immediate redesign. Instead, the analysis identifies Usability and Clarity (13 mentions) and System Reliability (11 mentions) as more critical functional issues, where users reported confusion and technical bugs, such as non-functional help buttons. These are followed by Visual Design Issues (10 mentions), characterized by a "monotonous" and "less attractive" interface. Although Inefficient Task Flow received fewer mentions (8 mentions) compared to other categories, it was selected as a key area for redesign because it directly impacts core user interactions—such as the need for multiple clicks during uploads—which fundamentally hinders efficiency. Overall, these findings highlight that while users desire more modern features, the primary barriers to a positive experience lie in clarity, reliability, and task efficiency, forming the basis for the proposed UI/UX solutions.

3.3 UI/UX Redesign

Based on the problem analysis derived from qualitative findings, the redesign focuses on the key problem categories identified, namely usability and clarity, visual design, system reliability, and inefficient interaction and task flow. These categories were selected as they represent the main issues that directly affect user interaction and overall usability. Although various feature requests were identified, they were not prioritized as they reflect diverse user expectations rather than a single dominant problem. Therefore, the proposed design solutions are aimed at addressing these key problems to achieve more targeted improvements. The redesign prototype was developed using Figma to visualize and implement the proposed solutions.

Table 7. Mapping of problem to Design Solutions

No.	Priority Problem	Proposed Solution	Design Implementation
1	Usability & Clarity Issues	Clarify navigation structure	Redesigned sidebar navigation with clearer labels and grouping
2	Visual Design Issues	Improve layout & visual hiearchy	Updated color scheme, typography, and spacing for better hierarchy
3	System Reliability Issues	Providing design representations of intended feature functionality	Designed UI flows for help page
4	Inneficient Task Flow	Simplify workflow	Streamlined upload process and added edit interaction

Based on the identified issues presented in Table 7, the UI/UX redesign prototype was developed by translating user problems into specific interface improvements. Each problem category was analyzed to understand its impact on user interaction and then addressed through corresponding design solutions. Issues related to unclear navigation and task complexity were improved through better information hierarchy, simplified navigation structure, and clearer labeling. Visual inconsistencies were addressed by improving layout organization, typography, spacing, and color consistency to enhance readability and interface clarity. In addition, inefficient task flows were redesigned to reduce unnecessary interaction steps and improve user efficiency. Through this problem-driven approach, the redesign ensures that each interface improvement directly responds to issues identified during the evaluation process, resulting in a more intuitive and user-friendly prototype.

3.3.1 Usability and Clarity Improvement

To illustrate the improvements in usability and navigation clarity, Figure 2 and Figure 3 present a comparison between the original interface and the redesigned interface.

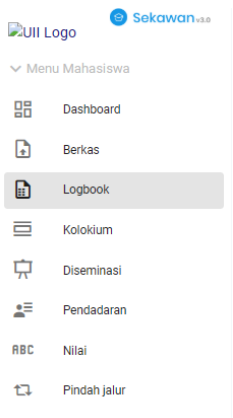

Figure 2. Before Redesign

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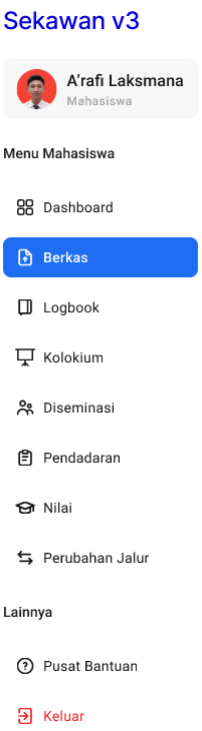

Figure 3. After Redesign

As shown in Figure 2 and Figure 3, the original design has less structured navigation and limited visual hierarchy, which may cause user confusion. In contrast, the redesigned interface provides clearer menu grouping, improved labeling, and consistent icon usage, making navigation more intuitive. In addition, an active state color is introduced to clearly indicate the currently selected menu, helping users better understand their position within the system. This redesign was developed based on the identified usability and clarity issues, particularly user confusion and lack of guidance in understanding the system structure. Therefore, key design principles such as visual hierarchy, consistency, and clarity were applied to improve usability and reduce cognitive load.

3.3.2 Visual Design Improvement

To improve the visual design, Figure 4 presents the redesigned dashboard interface implemented in the proposed redesign.

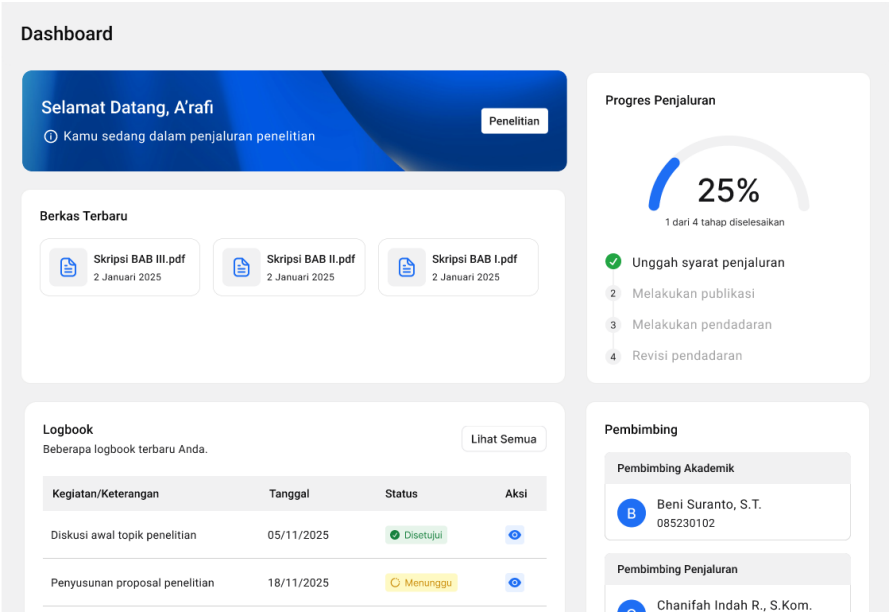

Figure 4. Redesigned Dashboard Interface

The dashboard was chosen because it serves as the primary interaction point for users, making it essential in shaping the overall user experience. The redesign applies key design principles such as visual hierarchy, consistency, and

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clarity. Visual hierarchy is enhanced through the use of card-based layouts, spacing, and contrast to emphasize important information. Consistency is reflected in the use of uniform colors, typography, and UI components, while clarity is improved by organizing content into well-defined sections. In terms of visual enhancement, the interface incorporates a more modern color scheme, improved typography for better readability, and a structured layout using cards to separate information. Additional visual elements, such as progress indicators and clearer status labels, are also introduced to help users quickly understand system information and improve overall user experience.

3.3.3 System Reliability Improvement

To address issues related to system reliability, Figure 5 and Figure 6 illustrate the comparison between the original help menu and the redesigned help feature.

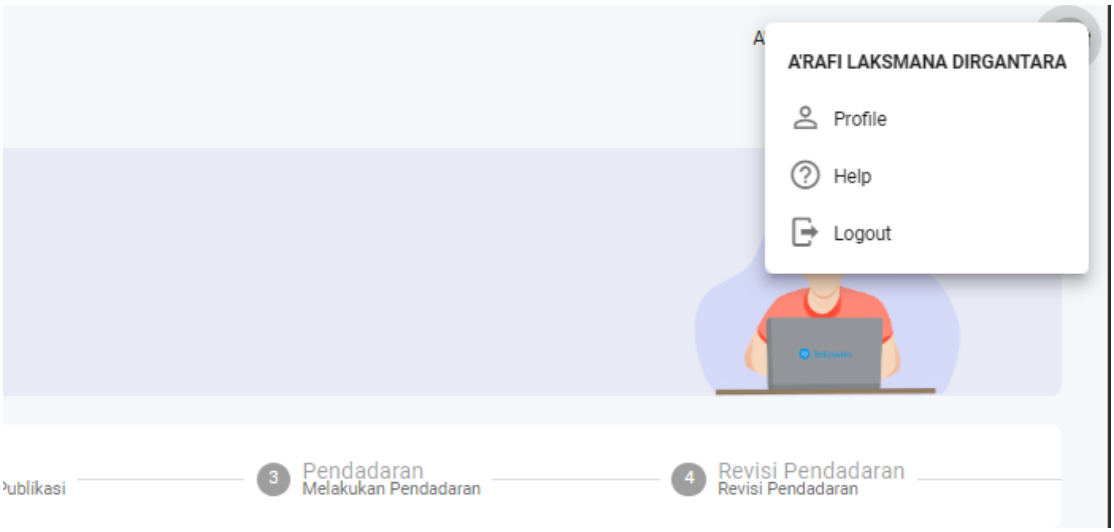

Figure 5. Help Menu Before Redesign

In the original SEKAWAN V3 system, the help menu does not function as expected, as clicking the menu does not direct users to any page or provide relevant assistance. This issue affects the perceived system reliability and may lead to user confusion.

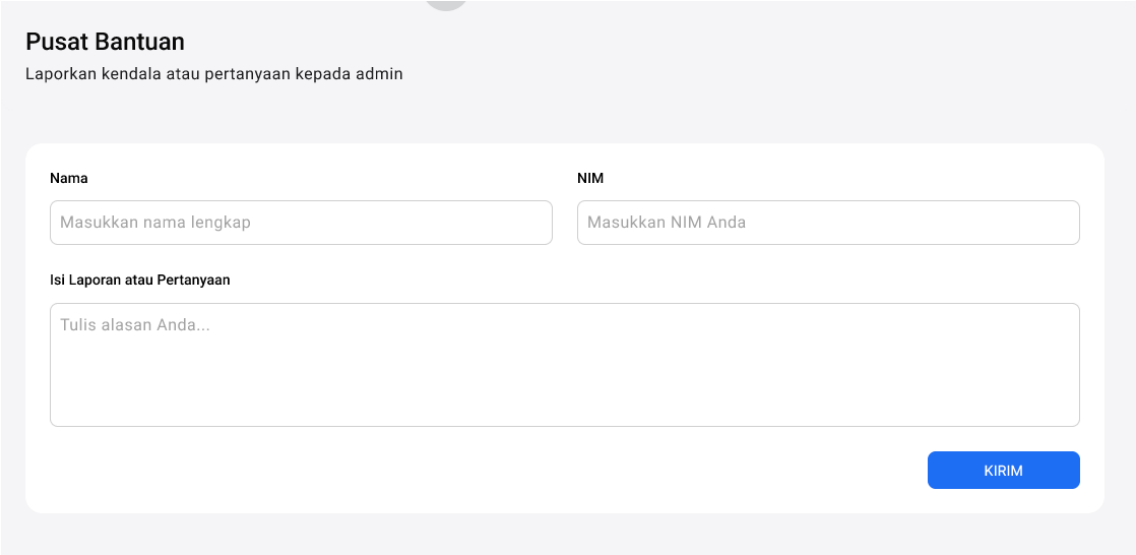

Figure 6. Redesigned Help Feature

To address this issue, a design solution was proposed in the form of a UI/UX prototype. The proposed design illustrates how the help feature is expected to function, where clicking the help menu directs users to a dedicated help page containing a support form. This design aims to provide a clearer interaction flow and improve users' understanding of the system's intended functionality.

3.3.4 Inneficient Task Flow Improvement

To identify issues related to inefficient task flow, Figure 7 and Figure 8 illustrate the process of adding a logbook entry in the current SEKAWAN V3 system.

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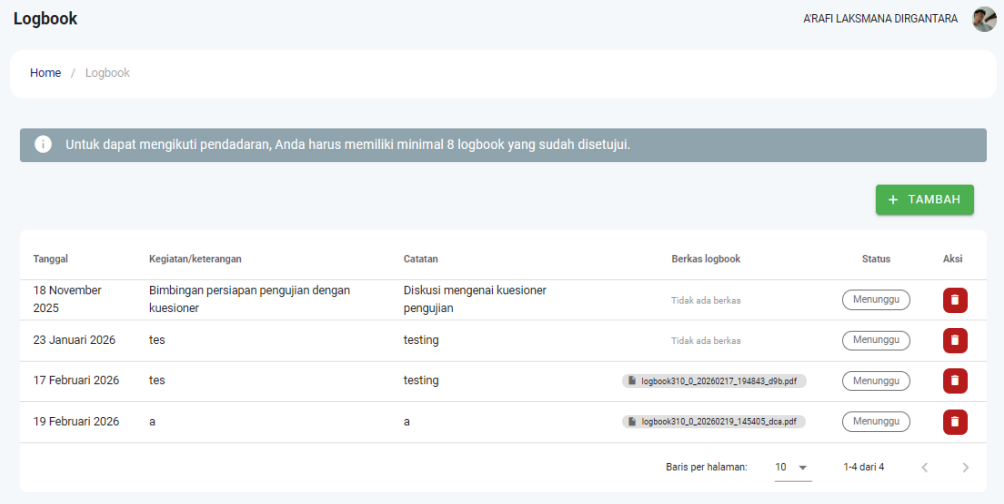

Figure 5. Logbook Page

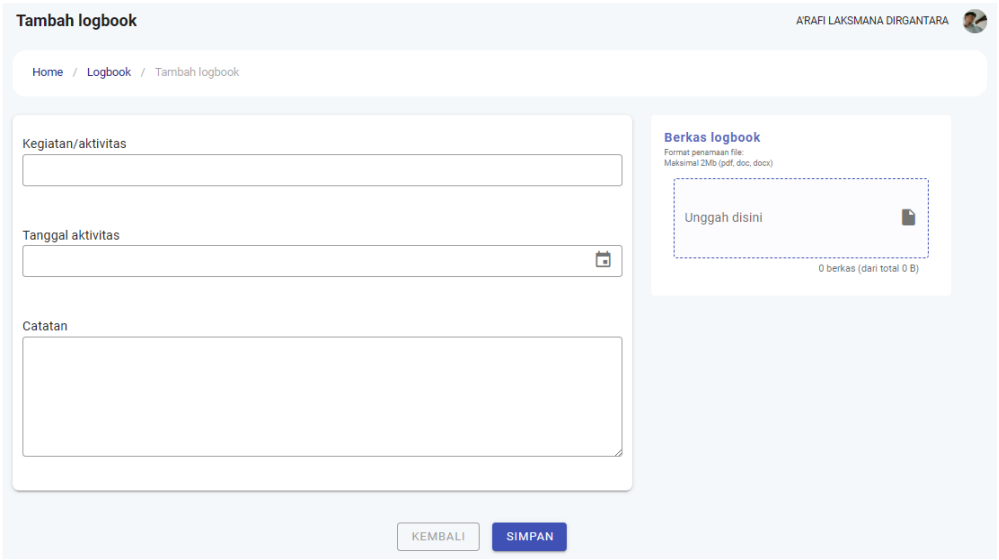

Figure 6. Page to Add a Logbook

In the current SEKAWAN V3 system, adding a logbook entry requires users to navigate to a separate page after clicking the add button, as shown in Figure 8. Although the form itself contains only a small number of input fields, users are still required to switch pages, which may increase cognitive load and disrupt the workflow.

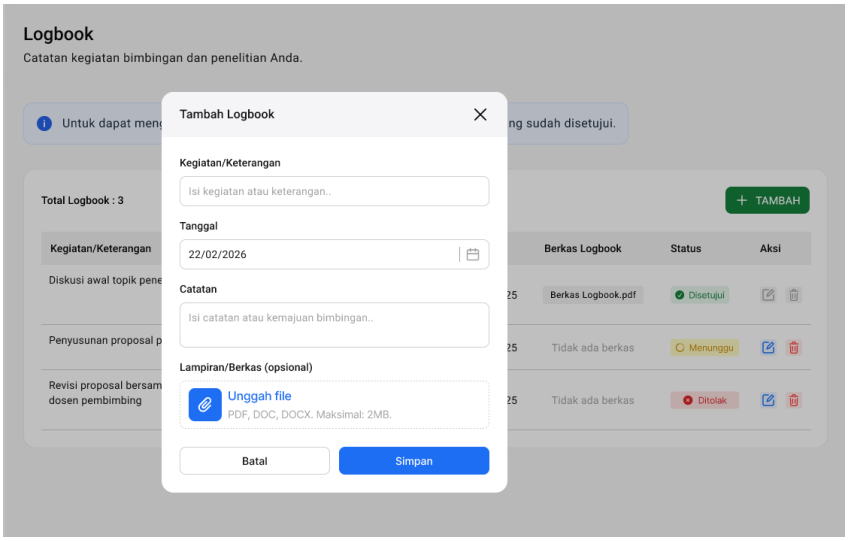

Figure 9. Improvement of the logbook filling flow

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To address the inefficiency in the logbook entry process, a design improvement was proposed by replacing the page transition with a pop-up interface. In the proposed design, when users click the add button, a pop-up form appears, allowing them to input logbook data without leaving the current page, as shown in Figure 9. This approach maintains the clarity of the input fields while simplifying the interaction flow, resulting in a more efficient and streamlined user experience.

3.4 Re-Evaluation Result

The re-evaluation was conducted to assess the user experience of the redesigned prototype. Similar to the initial evaluation, this stage involved 23 respondents using the User Experience Questionnaire (UEQ). After performing data consistency checks, one inconsistent response was removed, resulting in 22 valid responses. The results of the re-evaluation in terms of mean and variance are presented in Table 8.

Table 8. UEQ Re-Evaluation Mean and Variance

UEQ Scales (Mean and Variance)		
Attractiveness	2,008	0,95
Perspicuity	2,068	0,77
Efficiency	1,943	0,60
Dependability	1,920	0,69
Stimulation	1,830	1,29
Novelty	1,273	1,65

Table 8 presents the results of the UEQ re-evaluation conducted using the redesigned prototype. The results show that all UEQ dimensions experienced an improvement compared to the initial evaluation. The highest mean score is achieved by perspicuity (2.068), indicating that the redesigned interface is perceived as more understandable and easier to use. This is followed by attractiveness (2.008) and efficiency (1.943), suggesting improvements in visual appeal and task performance. In addition, dependability (1.920) and stimulation (1.830) also show positive improvements, indicating better perceived system reliability and user engagement. Notably, the novelty dimension (1.273) shows a considerable increase compared to the previous result, although it remains the lowest among all dimensions. Overall, these results indicate that the proposed redesign has successfully enhanced the user experience across all measured dimensions. Furthermore, the overall quality assessment shows that the pragmatic quality reached a score of 1.98, while the hedonic quality achieved 1.55, as presented in Table 9. These results indicate that the redesign not only improves usability aspects but also enhances user engagement and overall experience.

Table 9. Pragmatic and Hedonic Quality

Pragmatic and Hedonic Quality	
Attractiveness	2,01
Pragmatic Quality	1,98
Hedonic Quality	1,55

To provide a clearer interpretation of the results, the UEQ benchmark is used to categorize each dimension, as shown in Table 10.

Table 10. UEQ Benchmark Results of the Re-evaluation

Scale	Mean	Comparison to benchmark
Attractiveness	2,01	Excellent
Perspicuity	2,07	Excellent
Efficiency	1,94	Excellent
Dependability	1,92	Excellent
Stimulation	1,83	Excellent
Novelty	1,27	Good

Based on the UEQ benchmark results, most dimensions are categorized as “Excellent,” including attractiveness, perspicuity, efficiency, dependability, and stimulation. This indicates that the redesigned system achieves a high level of user experience quality across both usability and engagement aspects. Meanwhile, the novelty dimension is categorized as “Good,” suggesting that although the system is perceived as sufficiently innovative, there is still room for further improvement in terms of creativity and uniqueness. Overall, these benchmark results reinforce that the implemented UI/UX redesign has successfully improved the quality of the user experience, both in pragmatic and hedonic aspects.

Table 11. Summary of user Feedback from Open-Ended Responses

Global Category	Number of Mention	Example Response
Improved Usability & Clarity	43	“Mudah dipahami”, “navigasi jelas”, “user-friendly”
Improved Visual Design	17	”lebih menarik”, ”clean”, ”tidak monoton”

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Global Category	Number of Mention	Example Response
Improved Task Flow & Efficiency	6	“alur lebih jelas”, “tidak membingungkan”
Improved Readability	2	”font jelas”, ”mudah dibaca”
Positive Overall Experience	21	”puas”, ”nyaman”
Remaining Issues	9	”masih ada kekurangan kecil”
No Further Suggestion	7	”tidak ada saran”
Minor Improvements	4	” sudah baik, backend bisa ditingkatkan”
Feature Suggestions	3	”notifikasi”
Neutral/No Strong Change	6	”biasa aja”, ”basic aja”

Table 11 presents the summary of user feedback obtained from the qualitative analysis of open-ended responses in the post-redesign evaluation. The results demonstrate a significant positive shift in user perception, with Improved Usability and Clarity emerging as the most prominent category, accounting for 43 mentions. Users explicitly described the system as "user-friendly" with "clear navigation" and "easy to understand," indicating that the redesign addressed previous comprehension barriers. This is followed by a Positive Overall Experience (21 mentions) and Improved Visual Design (17 mentions), where respondents highlighted the interface as being "clean," "attractive," and "no longer monotonous". Additionally, the analysis shows that the changes to interaction flow were well-received, as evidenced by feedback on Improved Task Flow and Efficiency (6 mentions) and Improved Readability (2 mentions), with users noting clearer fonts and more intuitive workflows. While the majority of the feedback was positive, the evaluation also captured Remaining Issues (9 mentions) and Minor Improvements (4 mentions), such as suggestions for backend optimization. A small number of users also provided Feature Suggestions (3 mentions), including requests for notifications. Overall, these findings suggest that the redesigned prototype has successfully enhanced the user experience by addressing core usability, visual, and interaction flow issues identified in the initial assessment.

3.5 Comparative Analysis

This section presents a comparative analysis of user experience between the initial evaluation and the re-evaluation after the implementation of the UI/UX redesign. The analysis is conducted using quantitative data from the User Experience Questionnaire (UEQ), supported by qualitative insights derived from open-ended responses.

3.5.1 Comparison of UEQ Results

Table 12. Comparison of UEQ Result

Dimension	Initial Evaluation	Re-Evaluation	Improvement
Attractiveness	1,049	2,008	+0,959
Perspicuity	1,221	2,068	+0,847
Efficiency	1,324	1,943	+0,619
Dependability	1,176	1,920	+0,744
Stimulation	0,752	1,830	+1,078
Novelty	0,132	1,273	+1,141

The comparison between the initial evaluation and the re-evaluation results indicates a consistent improvement across all UEQ dimensions. The most significant increases are observed in novelty (+1.141) and stimulation (+1.078), suggesting that the redesigned prototype is perceived as more engaging and innovative compared to the previous version. Substantial improvements are also found in attractiveness (+0.959) and perspicuity (+0.847), indicating that the interface is not only more visually appealing but also easier to understand and navigate. Furthermore, dependability (+0.744) and efficiency (+0.619) also show positive gains, reflecting improvements in perceived system reliability and task performance. Although the increase in efficiency is relatively lower compared to other dimensions, it still demonstrates a more streamlined interaction flow. Overall, these results confirm that the proposed redesign has successfully enhanced the user experience across both pragmatic and hedonic quality dimensions.

3.5.2 Analysis and Comparison of User Feedback

The qualitative analysis further supports the quantitative results by showing a clear shift in user perceptions between the initial evaluation and the re-evaluation. In the initial evaluation, although the highest number of mentions was related to a lack of innovation and modern features (16 mentions), these responses were primarily diverse feature requests rather than specific usability flaws. The more critical functional barriers identified were usability and clarity issues (13 mentions) and system reliability (11 mentions), where users reported confusing navigation, a lack of guidance, and technical bugs. Additionally, users described the interface as "monotonous" and "less attractive," contributing to 10 mentions of visual design issues. In contrast, the re-evaluation responses indicate a substantial improvement in the user experience. The most prominent feedback moved toward improved usability and clarity, which received 43 positive mentions. Users commonly described the system as "easy to understand" with "clear navigation" and a "user-friendly" interface. Improved visual design also saw a significant positive shift with 17 mentions, as users perceived the interface as "clean," "more attractive," and "no longer monotonous". Furthermore, a positive overall experience (21 mentions) was reported, with users feeling "satisfied" and "comfortable" using the system. The interaction flow was also perceived as more intuitive, as evidenced

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by 6 mentions of improved task flow and efficiency, with users noting that the workflow was "clearer" and "not confusing". Despite these improvements, some remaining issues (9 mentions) and minor improvements (4 mentions) were identified, such as the need for backend enhancements. This suggests that while the redesign addresses the core usability and visual issues identified in the initial evaluation, there are still opportunities for further refinement. Overall, the qualitative findings indicate a marked improvement in usability, visual presentation, and the overall user experience following the redesign.

3.5.3 Design Improvement Analysis

To further analyze the impact of the redesign, the identified problems from the initial evaluation are mapped to the implemented design solutions and their impact on user experience. This analysis demonstrates how each design decision contributes to the observed improvements in both quantitative and qualitative results.

Table 13. Design Improvements and Their Impact

Problem	Design Solution	Impact (Result)
Usability & Clarity	Redesigned sidebar navigation with clearer labels and grouping	Improves perspicuity
Visual Design	Updated color scheme, typography, and spacing for better hierarchy	Enhances attractiveness and stimulation
System Reliability	Designed UI flows for help page	Improves dependability
Inneficient Task Flow	Streamlined upload process and added edit interaction	Improves efficiency

The mapping in Table 13 shows how each identified problem is addressed through specific design solutions and contributes to improvements in the corresponding UEQ dimensions. The proposed redesign primarily enhances perspicuity, attractiveness, dependability, and efficiency, indicating improvements in both usability and overall user experience.

3.6 Discussion

The results indicate an overall improvement in user experience after the redesign of the SEKAWAN V3 system, as reflected in both UEQ results and qualitative feedback. Improvements are observed across all UEQ dimensions, particularly in perspicuity, attractiveness, and stimulation, indicating that the redesigned prototype is perceived as more understandable, visually appealing, and engaging. These findings are further supported by qualitative responses, where users report clearer navigation, more structured interfaces, and a more intuitive interaction flow. These findings are consistent with previous studies. Similar to the M-Paspor redesign study, which showed an increase in usability after redesign, this study also demonstrates improved user experience following design changes [13]. Likewise, studies on e-surat and BCA Mobile report improvements across multiple UX dimensions after redesign, especially in usability and engagement [16], [17]. In line with research applying UCD and UEQ, the improvements in this study are influenced by incorporating user feedback into the design process [14]. Furthermore, similar to findings in previous research, the results also indicate that improvements in user experience do not eliminate all issues [15]. Some minor problems and suggestions are still identified, such as the need for additional features and further refinement of certain interface elements. This suggests that redesign is an iterative process and continuous improvement is required to further enhance user experience.

The observed improvements can be explained by the applied design changes. Enhancements in navigation structure and labeling contribute to better perspicuity, while improvements in color, layout, and visual elements enhance attractiveness and stimulation. Simplified task flows also support better efficiency and usability. This study contributes by applying a before–after evaluation approach on a thesis management system using a combination of UEQ and open-ended questions, providing a more comprehensive understanding of user experience changes.

4. CONCLUSION

This study evaluates the user experience of the SEKAWAN V3 website by comparing user perceptions before and after a UI/UX redesign using quantitative evaluation supported by qualitative insights. The results indicate an improvement in user experience after the redesign. Based on the UEQ results, all dimensions show increased scores, covering both pragmatic quality (perspicuity, efficiency, and dependability) and hedonic quality (stimulation and novelty). These findings suggest that the redesigned interface is perceived as more understandable, more structured, and more engaging. The qualitative findings further support these results. Issues identified in the initial evaluation, such as confusing navigation, unclear feature functionality, and a less structured interface, are reported less frequently in the re-evaluation. Instead, users commonly describe the prototype as easier to use, with clearer navigation, improved visual design, and more intuitive interaction flow. Although several minor issues and suggestions remain, the findings indicate that the redesign addresses key usability and visual concerns identified in the initial evaluation. This study has several limitations. First, the evaluation was conducted using a prototype rather than a fully implemented system, meaning that the results reflect user perception of the design rather than actual system performance. Second, the number of valid respondents used

in the analysis is relatively limited after data filtering, which may affect the generalizability of the findings. Third, the qualitative analysis is based on aggregated responses, which may include multiple mentions from the same respondent and does not represent unique user counts. Future work may include evaluating the redesigned interface in a fully implemented system, involving a broader range of users, and conducting longitudinal studies to better understand user experience over time.

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