

Enhancing application design for integrated evaluation through user-centered prototyping with figma

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ABSTRACT

This study developed an integrated evaluation application using a User-Centered Design (UCD) approach combined with user-centered prototyping via Figma, aiming to improve academic service management in educational institutions. The application focused on four main features: service request submission, complaint reporting, lecturer evaluation, and a knowledge base for self-service solutions. Requirements were gathered through questionnaires and interviews with students, lecturers, and faculty leaders to ensure the design met user needs. The prototype was iteratively refined based on quantitative and qualitative evaluations using Likert scale questionnaires. Results showed high user satisfaction with an average score of 4.41, indicating excellent usability, visual appeal, and feature relevance. Thematic analysis highlighted key themes of ease of use, interface consistency, and system security. The integrated UCD and Figma prototyping approach proved effective in producing an adaptive, interactive, and user-friendly application design that supports continuous improvement in academic services.

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1. INTRODUCTION

The advancement of information technology has encouraged educational institutions to develop digital applications that are not only functional but also capable of providing a positive user experience. The complexity of academic service systems necessitates the design of applications that are efficient, intuitive, and adaptable to user needs. Therefore, the User-Centered Design (UCD) approach has become increasingly relevant to ensure that application designs effectively address the problems encountered by users.

Previous studies have demonstrated the effectiveness of the User-Centered Design (UCD) approach across various contexts, ranging from tourism applications (Sugiarto & Riyadi, 2022) and village information systems (Putra et al., 2024) to complex interaction systems (Brooke, 2023). These findings indicate that user involvement in the design process plays a crucial role in enhancing usability and service quality. Furthermore, the use of Figma as a prototyping tool has also been proven to support an iterative and collaborative design process (Pratama & Hartono, 2023), thereby producing interfaces that better align with user expectations.

In this study, an integrated evaluation application is designed to support service management within educational institutions. The application provides convenience for lecturers, students, and staff in submitting service requests, reporting complaints, evaluating lecturer performance, and accessing a knowledge base as a self-service solution for common issues. The primary objectives of this application are: (1) to improve service efficiency; (2) to support continuous evaluation and improvement processes; and (3) to provide quick access to information.

By integrating the User-Centered Design (UCD) methodology with Figma-based user-centered prototyping, this research aims to produce an application design that is more adaptive, interactive, and capable of enhancing the quality of academic service management.

The novelty of this study lies in the application of user-centered prototyping using Figma in the context of developing an integrated evaluation application within educational institutions. Unlike previous studies that focus on specific domains such as tourism, dream interpretation, or village information systems, this research presents a design with a broader and more complex scope. Therefore, this study is expected to strengthen the empirical evidence that the integration of UCD and digital prototyping can improve usability while supporting the efficiency and quality of educational services.

The rapid development of educational services and increasing demands for transparency require adaptive and user-friendly academic management systems. UCD's emphasis on user involvement is crucial to address diverse user needs, reduce service complexity, and improve satisfaction among students, lecturers, and administrative staff. By applying UCD principles combined with effective prototyping tools like Figma, universities can achieve more efficient service workflows, enhanced transparency, and responsiveness to user feedback, which are essential for maintaining competitiveness and quality in Indonesian higher education institutions. This approach aligns with the national policy goals on the digital transformation of education and promises a sustainable improvement in academic service delivery.

2. RESEARCH METHOD

The User-Centered Design (UCD) methodology applied in this study was implemented through four main stages, as illustrated in Figure 1.



Figure 1. Research stages

The first stage, Requirement Analysis involves identifying user requirements through questionnaires and interviews. At this stage, information regarding user expectations and existing problems is collected to serve as the foundation for designing the application's features, including the User Dashboard, Service Request, Complaint Reporting, Lecturer Evaluation, and Knowledge Base. This process ensures that the resulting system aligns closely with actual user needs and addresses key pain points within academic service management.

The second stage, Design focuses on constructing user flows and wireframes, followed by the layout design of the user interface. The design process emphasizes principles of simplicity, consistency, and ease of navigation to facilitate intuitive interaction and minimize cognitive load. Each interface element is deliberately structured to support logical task progression and ensure accessibility for a diverse range of users.

The third stage, Prototyping utilized Figma entails the creation of an interactive prototype encompassing all core application features. This prototype allows users to engage directly with the system, providing immediate feedback on usability and functionality. The iterative nature of this process promotes early detection of design issues and enables rapid refinement, fostering a collaborative and responsive design cycle.

The final stage, Design Evaluation is conducted using a Likert-scale-based questionnaire to assess usability, efficiency, visual clarity, and overall user satisfaction. The evaluation results are analyzed both quantitatively and qualitatively to gain comprehensive insights into user perceptions and performance outcomes. These findings inform iterative revisions and refinements of the prototype until an optimal and user-validated application design is achieved.

3. RESULTS AND DISCUSSIONS

Requirement Analysis

The requirement analysis stage involved three primary user groups—students, lecturers, and faculty administrators. Interviews were conducted to identify user needs, expectations, and challenges encountered in both academic and non-academic service processes. This approach was chosen because these three groups represent the direct stakeholders who will interact with the

integrated evaluation application. From the student perspective, the main need lies in the availability of a system that simplifies the submission of service requests related to campus facilities and infrastructure, as well as a mechanism for reporting complaints in a fast and organized manner. Students also emphasized the importance of transparency in tracking the status of submitted requests or complaints, allowing them to monitor problem resolution progress in real time.

From the lecturer perspective, the focus centers on the need for an evaluation feature that accommodates student feedback on the learning process. This feature is considered essential as a reflective tool for teaching performance, covering aspects such as clarity of learning objectives, alignment of course content with the syllabus, and coherence in material delivery. Through a structured evaluation system, lecturers can obtain constructive feedback that supports continuous improvement in teaching quality.

Meanwhile, from the faculty leadership perspective, the needs identified are more managerial and decision-oriented. Leaders highlighted the importance of having features that not only facilitate reporting and evaluation but also integrate knowledge resources in the form of a knowledge base. This feature is expected to provide access to standard operating procedures (SOPs) and knowledge articles that can assist academic community members in independently resolving common issues. Based on the analysis of these three perspectives, it can be concluded that the development of the integrated evaluation application should focus on four core features: (1) Service Request, to facilitate the submission of academic and non-academic service requests; (2) Complaint Reporting, to provide a systematic and organized channel for issue submission; (3) Lecturer Evaluation, as an evaluative instrument for the teaching and learning process; and (4) Knowledge Base, serving as a repository of information and problem-solving guidelines.

Design

The Design Development stage focuses on the conceptualization of the user interface and user experience based on the results of the needs analysis. At this stage, the initial design of the application is developed in the form of user flows and wireframes to map navigation paths, information structures, and the layout of key elements such as menus, buttons, and content sections. The design process emphasizes the principles of usability, simplicity, consistency, and readability, ensuring that the resulting interface is intuitive and easily understood by users with varying levels of technical proficiency.

The outcomes of this stage include a conceptual design and low-fidelity wireframes, which serve as foundational references for the creation of interactive prototypes in the subsequent phase. The following illustrates the user interaction flow (user flow) designed using the User-Centered Design (UCD) approach. This flow maps the interrelationships among the main features, focusing on navigational clarity and service process efficiency. The user flow is structured to ensure that each user—whether student, lecturer, or administrator—can access the relevant functions according to their specific roles and needs within the system.



Figure 2. User flow

In general, the system is divided into four main processes: (1) Service Request Submission, (2) Complaint Reporting, (3) Lecturer Teaching Evaluation, and (4) Evaluation Dashboard.

1. The Service Request Submission flow begins with the user filling out a request form. The submitted data are then classified according to service categories such as facilities, infrastructure, or academic matters. Once submitted, the system automatically labels the request status as “new request” and forwards it to the relevant unit for verification and follow-up. Each status update—such as “on-going” or “resolved”—is recorded within the system, allowing users to monitor the progress of their requests in a transparent and systematic manner. This mechanism not only enhances accountability in service management but also ensures timely communication between users and administrative units.



Figure 3. Wireframe – login

2. The Complaint Reporting flow follows a similar structure to the service request process but focuses specifically on the reporting of issues such as network disruptions, facility damage, or administrative obstacles. Users are required to provide detailed descriptions of their complaints along with an assigned priority level to indicate the urgency of the issue. Once submitted, the report is received by the service administrator and processed according to its level of urgency. This stage adopts the principle of visibility of system status (Nielsen & Budiu, 2020), ensuring that users can continuously monitor the progress of their complaint tickets. By allowing real-time tracking of the resolution status, the system promotes transparency and accountability in communication between users and service administrators, thereby fostering greater trust and efficiency in issue management.

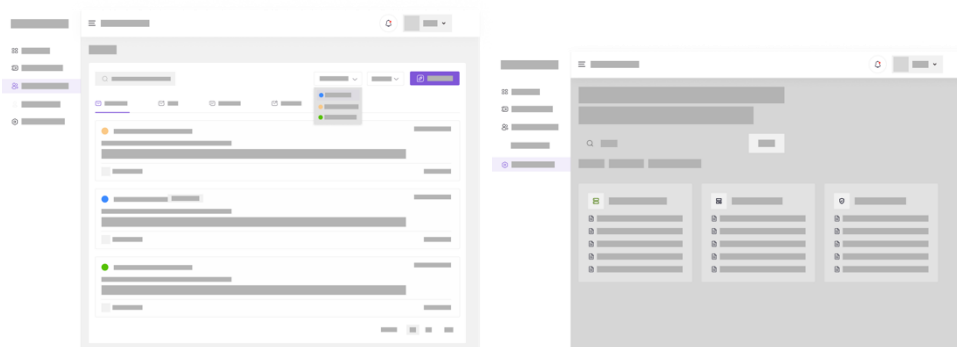


Figure 4. Report a Complaint

3. The Lecturer Teaching Evaluation flow enables students to provide feedback on course instructors through a visual rating system (such as emoji-based or numerical scales). The evaluation results are stored and processed to generate lecturer performance metrics, including indicators such as the clarity of learning objectives, the relevance of course materials, and the systematic delivery of instruction. According to (Prasetyo et al., 2022), the use of visual-based evaluation mechanisms enhances user participation because they are intuitive, engaging, and easy to interpret. By simplifying the feedback process, this approach encourages more students to contribute constructive input, thereby supporting continuous improvement in teaching quality and pedagogical effectiveness.

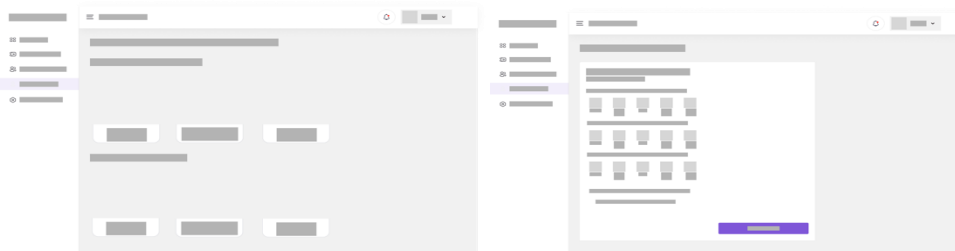


Figure 5. Wireframe - Lecturer Teaching Evaluation

4. The Evaluation Dashboard functions as a central control hub that integrates data from the three preceding processes. Through this dashboard, faculty administrators can monitor the number of service tickets, complaint statuses, lecturer evaluation results, and user activity trends in real time. By providing comprehensive and up-to-date insights, the dashboard facilitates data-driven decision-making aimed at improving service efficiency and quality (Li et al., 2022). This feature not only enhances administrative oversight but also enables proactive management, allowing institutional leaders to identify recurring issues, evaluate staff performance, and implement targeted improvements based on empirical evidence.



Figure 6. Wireframe - dashboard

Prototyping utilized Figma

The Prototyping with Figma stage serves as the continuation of the design development process, wherein the conceptual design is transformed into an interactive visual model using the Figma design tool. At this stage, visual elements such as color schemes, icons, typography, and interface components are refined in detail to produce a high-fidelity prototype. This prototype goes beyond static design representation, enabling users to directly interact with the system through simulated navigation flows, page transitions, and application workflows. The prototyping process is conducted iteratively, involving users in usability testing sessions to evaluate the design's functionality and overall user experience. Feedback collected from these sessions is systematically analyzed and used as the basis for subsequent design revisions. Through continuous refinement, the prototype evolves toward an optimal version that effectively balances aesthetic appeal, usability, and system performance, ensuring alignment with user expectations and operational requirements.

- a. Login Interface, the login page design applies the principles of aesthetic and minimalist design as well as clarity of interaction, as recommended by (Nielsen and Budiu, 2020), which emphasize the importance of creating an interface that is simple and directly aligned with the user's primary goals. The visual separation between the left area (information and branding) and the right area (authentication form) establishes a balanced composition while reducing the user's cognitive load. The use of high-contrast typography and a two-column form structure enhances readability and reinforces the hierarchy of information, ensuring that essential elements are easily identifiable and accessible. This approach aligns with the findings of (Zhang and Adipat, 2021), who demonstrated that minimalist login designs focusing on core functionality can increase the task completion rate by up to 25%. By integrating these principles, the login interface promotes efficiency, clarity, and an overall improved user experience.

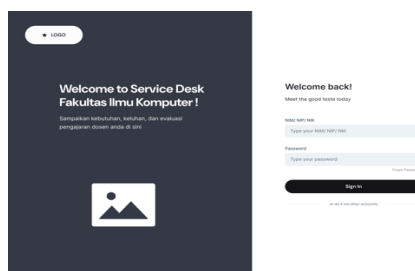


Figure 7. Prototyping - Login

- b. Dashboard, the Dashboard interface is developed using a data-driven visualization approach, designed to enable faculty administrators to quickly comprehend service performance metrics. According to (Li et al., 2022), the presentation of data through interactive graphs and progress bars enhances decision-making efficiency by supporting visual perception and pattern recognition. This visual strategy allows users to identify trends and anomalies more intuitively, facilitating timely and evidence-based management actions. The use of a grid-based layout combined with a blue–green thematic color scheme reflects the principles of consistency and cognitive mapping as recommended by (Al-Azawi and Badii, 2021). These design elements help maintain a coherent visual structure and aid users in orienting themselves within the interface. Furthermore, the implementation of line charts and circular progress indicators strengthens usability effectiveness by minimizing the need for manual data interpretation. Through this integration of structured layout and intuitive visualization, the dashboard effectively supports analytical clarity and managerial responsiveness.

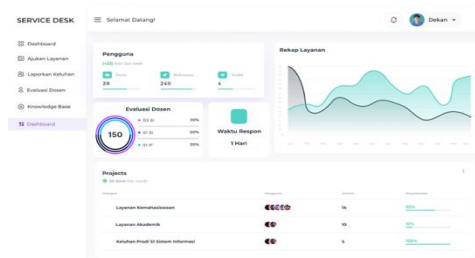


Figure 8. Prototyping - dashboard

- c. Ajukan Layanan, this page employs a form-oriented layout design aligned with the principles of efficiency of interaction and error prevention (Nielsen & Budi, 2020). The form components are arranged sequentially, beginning with user identification, followed by service type, priority level, and request description, to enhance scannability and streamline the input process. According to (Santoso & Widyantoro, 2022), a linear form structure can increase completion speed by up to 30% compared to non-linear layouts, as users can process and enter information in a more predictable flow. Additionally, the action button (Submit) is highlighted using a purple contrast color to reinforce visual salience and direct the user's attention toward the primary interaction point. This combination of structured layout, visual hierarchy, and color emphasis contributes to a more efficient, intuitive, and error-resistant form-filling experience.

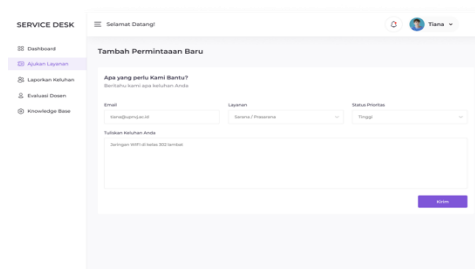


Figure 9. Prototyping - Service Request

- d. Complaint Reporting, the complaint reporting page design integrates the principles of simplicity of input and status visibility to ensure a seamless and transparent user experience. The inclusion of dropdown menus for priority and category classification follows the UX research recommendations of (Alsumait & Al-Osaimi, 2021), which emphasize the importance of priority-based complaint categorization to optimize technical response efficiency and resource allocation. Furthermore, the implementation of a color-coding system using blue, yellow, and green to represent different progress states enhances users' visual comprehension of complaint resolution status. This approach aligns with the human-system interaction ergonomics guidelines outlined in ISO 9241-210 (2019), ensuring that the interface supports intuitive perception, reduces cognitive effort, and maintains consistency in communicating system feedback throughout the complaint management process.

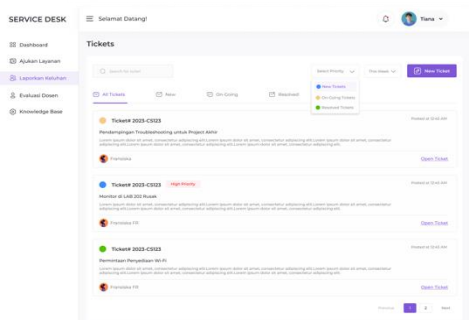


Figure 10. Prototyping - Report a Complaint

- e. Daftar Keluhan (The Complaint List), the complaint list interface employs a card-based information architecture designed to promote data organization and facilitate efficient progress tracking. This approach aligns with the findings of (Marquez et al., 2023), who demonstrated that the card layout format enhances task orientation and information recall by providing clear visual boundaries for each data entry. The modular structure allows users to quickly scan, compare, and prioritize information without cognitive overload. Additionally, the inclusion of a “High Priority” label highlighted in red increases visual alert salience, effectively drawing attention to urgent issues that require immediate action. This design choice reinforces the visibility of system status heuristic, ensuring that users remain aware of ongoing processes and the relative urgency of each complaint. Through this combination of structured presentation and visual emphasis, the interface supports rapid situational awareness and efficient task management.

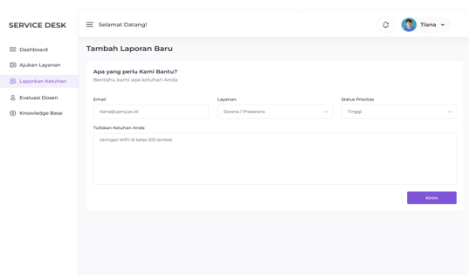


Figure 11. Prototyping - List of Complaints

- f. Evaluasi Dosen (Lecturer Evaluation), the Lecturer Evaluation module adopts an emotionally expressive interface design, utilizing facial expression icons (emojis) in place of traditional numeric rating scales. According to (Prasetyo et al., 2022), visual expression-based interfaces enhance user engagement and decision-making speed in online surveys by fostering intuitive interaction and reducing cognitive effort. This approach also aligns with the principle of recognition rather than recall, minimizing interpretive ambiguity in rating values and enabling users to respond more naturally. In addition, an open-text field is incorporated to capture qualitative feedback, allowing students to provide more detailed and context-rich reflections on

the teaching process. This integration supports the mixed-method evaluation framework advocated by (Norman & Nielsen, 2021), which combines quantitative and qualitative insights to achieve a more comprehensive understanding of teaching performance and learner satisfaction.

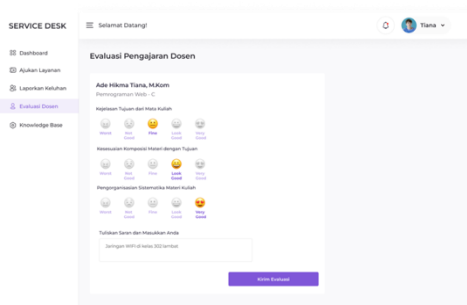


Figure 12. Prototyping - Lecturer Evaluation

- g. Daftar Dosen Pengampu (The Lecturer List), the lecturer list page design employs a grid card layout that emphasizes information grouping and visual hierarchy. This approach follows the recommendations of (Hossain et al., 2021), who assert that grid-based grouping designs facilitate users in identifying and categorizing elements that share similar contextual attributes. By presenting lecturers within visually distinct and well-structured cards, the interface enhances scannability and promotes efficient cognitive processing of information. Furthermore, the organization of lecturers according to the courses they teach reflects the principle of contextual information architecture, which enables users to locate relevant content more quickly and intuitively. This structured arrangement not only improves the system's navigational efficiency but also contributes to a more coherent and user-friendly browsing experience within the academic management environment.

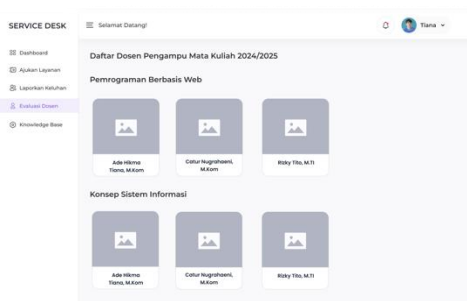


Figure 13. Prototyping - List of Course Instructors

- h. Knowledge Base, the Knowledge Base module is designed to support a self-service learning experience through the implementation of card categorization and search-driven interaction. According to (Yang et al., 2023), the use of categorical cards in digital knowledge systems enhances findability and increases users' perceived control, allowing them to navigate and access relevant information more efficiently. The placement of the search bar at the top of the page aligns with the search visibility principle recommended by the Nielsen Norman Group (2022), ensuring immediate discoverability and encouraging active information retrieval. Furthermore, the use of soft color palettes across categories reinforces visual differentiation while maintaining readability and visual comfort. This approach supports the principle of aesthetic harmony in modern interface design, balancing functional clarity with visual appeal to create an intuitive and engaging user experience.

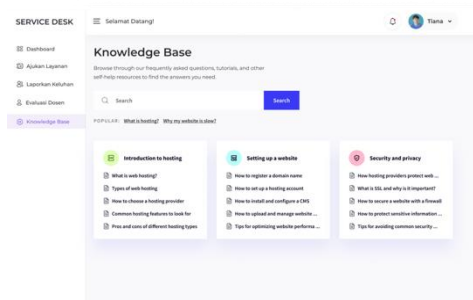


Figure 14. Prototyping - Knowledge Base

Evaluation

The design evaluation in this study was conducted using a questionnaire comprising both closed-ended (Likert scale) and open-ended questions. The closed-ended questions were designed to measure aspects such as user satisfaction, ease of use, visual appeal, and feature relevance, consisting of six items (questions 1–6). The Likert scale used contained five response levels, ranging from 1 = strongly disagree to 5 = strongly agree. In addition, two open-ended questions (questions 7–8) were included to obtain more in-depth feedback regarding the most appreciated aspects of the application design and areas that require improvement. This combination of quantitative and qualitative instruments enables the study to gather quantitative data for descriptive statistical analysis and qualitative insights for a richer understanding of user perceptions. The questionnaire items used in this study are as follows in Tavle 1.

Table 1. Questionnaire List

No	Assessed Indicator	Question Item	Question Type	Measurement Objective
1	Application visual satisfaction	Do you like the overall appearance of this application?	Closed-ended	To assess the user's general impression of the application's appearance.
2	Ease of understanding layout	How easy is it for you to understand the layout of this application?	Closed-ended	To measure the clarity of the application's navigation structure.
3	Color combination	How attractive is the color combination used in this application?	Closed-ended	To evaluate the visual aesthetics in terms of color.
4	Design clarity	Is the application design understandable?	Closed-ended	To measure the user's level of comprehension of the design.
5	Attractiveness of the evaluation form	How attractive is the evaluation form in this application?	Closed-ended	To assess the appeal and ease of use of the evaluation form.
6	Feature relevance	How important is this feature?	Closed-ended	To measure user perception of the urgency and usefulness of the feature.
7	Positive aspects (strengths)	What do you like most about the overall appearance of the application?	Open-ended	To identify the application's design strengths according to users.
8	Areas for improvement (weaknesses)	What needs to be improved in the integrated evaluation application design?	Open-ended	To identify weaknesses and suggestions for improving the application design.

The results of the analysis of the application design evaluation questionnaire, completed by 11 respondents, indicate an overall mean score of 4.41 on a five-point Likert scale. The interpretation of the mean score was based on the conversion of the five-point Likert scale into categorical intervals with a width of 0.80, as suggested by (Riduwan & Sunarto, 2020), (Sugiyono, 2021), and (Widyoko, 2020). According to this classification, scores within the 4.21–5.00 range fall under the “**very good**” category. Therefore, the findings demonstrate that the design of the integrated evaluation application developed in this study was perceived very positively by users, indicating a high level of acceptance and satisfaction with its usability, visual appeal, and functional relevance.

Table 2. Questionnaire Results

Responden	Q01	Q02	Q03	Q04	Q05	Q06
1	3	5	4	4	5	2
2	4	4	5	5	5	5
3	5	5	5	5	5	5
4	5	5	5	1	5	5
5	4	4	4	4	4	4
6	3	5	3	5	5	4
7	5	5	5	5	5	5
8	4	4	3	4	5	4
9	4	5	4	4	4	4
10	4	4	4	5	5	4
11	5	5	5	5	5	5
Jumlah Skor	46	51	47	47	53	47
Rata-rata	4.18	4.64	4.27	4.27	4.82	4.27
Rata-rata total	4.41					

In detail, the questionnaire item with the highest mean score was “How appealing is the evaluation form in this application?” (Q05), which achieved a score of 4.82. This result indicates that users found the evaluation form interface to be highly attractive and easy to use. Conversely, the lowest mean score was observed for the item “Do you like the overall appearance of this application?” (Q01), with a score of 4.18, which still falls within the “good” category. These findings suggest that, in general, users were satisfied with the application’s interface design, although there remains room for further visual refinement to enhance the overall aesthetic appeal.

The results strongly support the fundamental principles of User-Centered Design (UCD), which emphasize user involvement throughout the design process to ensure that the final product aligns with user needs and preferences (Brooke, 2023). The consistently high mean scores across most indicators demonstrate that the implementation of the UCD approach, combined with Figma-based prototyping, effectively enhanced the application’s usability, visual appeal, and feature relevance, thereby improving service management processes within educational institutions.

In addition to the Likert-scale responses, the study also collected qualitative data through two open-ended questions aimed at exploring user perceptions of the strengths and areas for improvement in the integrated evaluation application design. The qualitative data were analyzed using the thematic analysis method, in which user responses were categorized into two main themes: (1) Ease and usability, and (2) Features and integration. The results of this thematic analysis of open-ended responses are presented in the following Table 3.

Table 3. Results of Open-ended Questionnaire

No	Main Theme	Subtheme / Code	Respondent Quote	Interpretation
1	Ease of use and layout	User-friendly interface	“User interfacenya sangat baik.” “Desainnya memudahkan user untuk mengerti penggunaan alur aplikasinya.”	The application design is considered easy to use and understand by users from various backgrounds.
		Neatness and layout structure	“Desain yang rapih dan sangat bermutu.” “Semua fitur disusun dengan rapi sehingga mudah dinavigasi.”	The layout and interface structure support ease of navigation and usage efficiency.
3	Features and Integration	Simplicity of appearance	“Tampilan yang terlihat simple dan modern.” “Tampilan yang simpel dan cantik namun user experiencenya cukup baik.”	The simple and minimalist design is appreciated for providing a professional impression, easy recognition, and avoiding user confusion.
4		Consistency and readability	“Desain minimalis, tipografi jelas dan penggunaan warna yang konsisten.” “Ukuran font terlalu kecil.”	The visual consistency is considered good, but improvements are needed in text readability for some elements.
5	Features and Integration	Color and display variation	“Color bisa dibuat tidak terlalu monoton.” “Tambahan warna yang digunakan pada setiap bagiannya.”	Users desire more color variation to make the display less monotonous and visually more appealing.

No	Main Theme	Subtheme / Code	Respondent Quote	Interpretation
6		Interactivity and responsiveness	“Dibuat lebih interaktif.” “Pastikan aplikasi responsif di berbagai ukuran layar.”	The application features should be developed to be more interactive and remain optimal across different devices.
7		Display flexibility	“Opsinya untuk dapat menggunakan dark theme.”	Adding a theme option provides flexibility according to user preferences.
8		System performance and reliability	“Security dan high availability.”	Users believe the application should be supported by good security and system availability to ensure stable operation.
9		Focus on user needs	“Fokus pada kebutuhan pengguna.”	This feedback emphasizes the importance of a user-centered principle in future application development.

The thematic analysis results revealed two dominant themes: Ease and Usability, and Features and Integration. The first theme reflects users’ perceptions that the application design is simple, easy to use, and visually consistent, although some respondents suggested adjustments to text size for better readability. The second theme emphasizes the need for enhanced interactivity, greater color variation, and the inclusion of additional features such as dark mode and improved system security to further optimize the user experience. Overall, these findings reinforce the successful implementation of the User-Centered Design (UCD) approach, as the application design was positively evaluated by users and provided concrete, actionable feedback for iterative improvement in subsequent design phases. This outcome underscores the effectiveness of UCD in producing user-aligned, adaptive, and continuously improvable digital solutions within the context of academic service management.

4. CONCLUSION

This study successfully developed an integrated evaluation application using the User-Centered Design (UCD) methodology and Figma-based prototyping for implementation within educational institutions. The application focuses on four core features, Service Request, Complaint Reporting, Lecturer Evaluation, and Knowledge Base, each tailored to the specific needs of three primary user groups: students, lecturers, and faculty administrators. The evaluation results, obtained through a Likert-scale questionnaire, revealed an average score of 4.41 (categorized as very good), indicating a high level of user satisfaction, ease of use, and feature relevance. The thematic analysis of qualitative data identified two major themes Ease and Usability, and Features and Integration highlighting aspects such as a user-friendly interface, simplicity of layout, color variation, interactivity, and system security enhancements. The implementation of UCD principles combined with interactive prototyping through Figma proved to be effective in improving usability, visual appeal, and adaptability, thereby supporting efficient academic service management processes. Furthermore, the results provide constructive feedback for the iterative development of future application designs, ensuring continuous alignment with user needs and expectations. Future research opportunities could expand this model by incorporating additional variables such as user engagement metrics, system reliability indicators, and quantitative learning outcomes assessment. These variables would enhance the comprehensiveness of the evaluation framework and provide deeper insights into the long-term effectiveness of UCD-based educational applications. Figma-based UCD implementation demonstrates practical contribution to education digitization strategies by providing a replicable framework for developing user-centered academic service systems. The methodology offers educational institutions a structured approach to digital transformation that prioritizes user needs while ensuring scalability and integration with existing administrative processes. This research establishes a foundation for institutional-level policies that can guide similar digital service implementations across various educational contexts. Furthermore, the results provide constructive feedback for the iterative development of future application designs, ensuring continuous alignment with user needs and expectations while contributing to the broader discourse on evidence-based digital education policy development.

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