

# Evaluating the Impact of User Interface Design on the Effectiveness of the Entrance Exam System: A Design Analysis Approach for the Entrance Exam System

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## ABSTRACT

*This study explores the impact of user interface (UI) design on the effectiveness and user experience of the entrance exam system at South East Asian Institute of Technology (SEAIT). As more educational institutions transition to digital platforms for exam administration, the role of Human-Computer Interaction (HCI) in designing effective, user-friendly interfaces becomes crucial. This research aims to assess how specific UI elements influence usability, task efficiency, and error reduction in the digital exam environment. Using a quantitative methodology, surveys were distributed to 350 first-year students who participated in the entrance exam, gathering data on their perceptions of the system's layout, navigation, and overall user experience. The findings reveal that while the current system meets basic functional requirements, several aspects such as navigation flow, error prevention, and user confidence in the interface require significant improvement. The study highlights the need for a more cohesive design that integrates visual hierarchy, clear navigation cues, and intuitive task flow. Based on these insights, the research proposes a user-centered design approach to optimize the system, focusing on enhancing user satisfaction and exam efficiency. Additionally, the study emphasizes the importance of accessibility, ensuring the system accommodates a wide range of users, including those with varying technical proficiency and demographic backgrounds. The findings offer valuable contributions to the field of educational technology by providing a framework for designing digital exam systems that prioritize user experience, leading to improved test-taking performance, efficiency, and overall satisfaction.*

**Key Words:** Entrance Exam System, Human-Computer Interaction (HCI), Usability, Efficiency, Error Reduction, Digital Testing Environments, User Experience (UX), Navigation Flow, Interface Confidence, User-Centered Design, Visual Hierarchies, Progress Indicators, Educational Platforms, System Accuracy, Exam Efficiency, Demographic Inclusivity, User Interface (UI) Design.

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## 1. INTRODUCTION

### 1.1 Background and Context

The design and operation of digital systems were greatly impacted by developments in Human-Computer Interaction (HCI), which were essential for improving user experience and system performance. User interface (UI) design became increasingly important as technology advanced, influencing how well systems performed in a variety of industries, including education. While a poorly designed user interface resulted in confusion, inefficiencies, and mistakes, a well-designed UI simplified procedures, lowered complexity, and increased user satisfaction.

The role of HCI in entrance examination systems, particularly those used by educational institutions, was paramount. Entrance exams had a direct impact on admission to education and were a crucial part of the student selection process. The user interface played a critical role in guaranteeing a seamless and efficient examination procedure as more educational institutions switched to online methods for administering these tests. Examiners gained a great deal from a user-friendly design that made navigation easier, reduced mistakes, and enhanced the exam's overall flow.

The purpose of this study was to assess how user interface (UI) design affected the efficiency of the digital entrance exam system used by SEAIT (South East Asian Institute of Technology). Exam administration at SEAIT had moved to a digital platform, yet there were still issues, including low usability and inefficiency. Exam efficiency and accuracy were significantly impacted by these problems, which also had an adverse effect on test takers. In order to provide suggestions for enhancements, the study examined particular user interface components that affect system performance. In the end, it aimed to advance user-centered designs that improved the general functioning and dependability of the system to support Human-Computer Interaction (HCI).

### **1.2 Research Problem**

There was a lack of comprehensive understanding of how user interface (UI) design impacted the effectiveness of digital entrance exam systems, particularly in educational institutions like SEAIT (South East Asian Institute of Technology). Despite advancements in Human-Computer Interaction (HCI), many educational systems continued to suffer from poorly designed interfaces that hindered user experience and reduced system efficiency. These design shortcomings led to user frustration, increased error rates, and inefficiencies in exam administration, affecting exam takers.

Limited research existed on the specific UI elements that contributed to the success or failure of entrance exam systems, leaving a gap in knowledge regarding best practices for designing user-centered educational platforms. Addressing this problem was crucial because well-designed UIs not only improved usability but also directly impacted the system's effectiveness, accuracy, and reliability. In the context of advanced HCI, resolving these issues was vital for developing smarter, more intuitive interfaces that adapted to user needs, enhanced system performance, and improved the overall experience for the students.

### **1.3 Research Questions and Objectives**

- How does the user interface design of the entrance exam system affect the overall user experience and effectiveness in test-taking?
- What specific elements of the user interface design contribute to improving or hindering the efficiency and accuracy of the entrance exam system?
- In what ways can the user interface design of the entrance exam system be optimized to enhance the effectiveness of the system for the examinees?

### **1.4 Justification and Significance**

By analyzing how specific UI design elements contributed to or hindered the effectiveness of entrance exam systems, this research provided actionable insights for designers and developers. These findings helped improve the usability and functionality of such systems, leading to smoother user experiences for examinees. Furthermore, a well-designed interface reduced errors, improved navigation, and increased the overall satisfaction of users, resulting in more accurate testing outcomes and efficient system management.

## **2. LITERATURE REVIEW**

### **2.1 Overview of HCI Theories and Models**

#### **An examination of student user experience (UX) and perceptions of remote invigilation during online assessment**

Lesley T. Sefcik, T. Veeran-Colton (2022) Human-Computer Interaction (HCI) has evolved significantly since its inception, incorporating models such as Norman's Model of Interaction and Fitts' Law. Norman's model outlines the relationship between users' goals and the system's actions, emphasizing the importance of usability and cognitive load. Fitts' Law, on the other hand, focuses on the time required to move to a target area, which is key in designing efficient user interfaces. These models have expanded into more comprehensive frameworks like User-Centered Design (UCD) and Activity Theory, which focus on users' experiences and the contextual environments in which they interact with systems. As technology has advanced, these foundational models remain relevant, serving as the basis for further development in fields such as ubiquitous computing and virtual reality.

Over time, HCI theories have shifted from purely technical considerations to more holistic approaches that account for the psychological, social, and environmental aspects of user interactions. For example, UCD has evolved to include co-design methods, where users are active participants in creating systems tailored to their needs.

Additionally, the introduction of natural user interfaces (NUIs) and multimodal interaction, which allow users to engage with systems through touch, voice, and gestures, demonstrates the growing complexity of user interactions. These advancements highlight the increasing emphasis on adaptive, intuitive, and context-aware interfaces in modern HCI.

Recent HCI research has focused on areas like artificial intelligence (AI), human-robot interaction (HRI), and immersive technologies such as virtual and augmented reality (VR/AR). AI has enhanced HCI by enabling personalized user experiences through machine learning algorithms, while HRI explores the interaction between humans and autonomous systems, particularly in domains like healthcare and education. Furthermore, advances in VR/AR are transforming how users experience digital environments, offering new opportunities for immersive and interactive applications. As these technologies continue to evolve, HCI research is exploring the ethical, privacy, and accessibility implications of these systems to ensure they are user-friendly and inclusive.

## **2.2 Review recent studies, papers, and advancements in HCI**

### **The Influence of User Interface Design on Exam Administration Efficiency**

Lee, J., & Park, S. (2022) User interface design is crucial for online exam systems, impacting student performance, administration efficiency, and overall user experience. While advancements have been made, challenges remain in areas such as technical constraints, accessibility barriers, user adoption, and evaluation. Emerging trends include adaptive user interfaces, gamification, AR/VR, NLP, and accessibility features. Addressing these challenges and leveraging emerging technologies will be essential for creating effective and inclusive online exam systems.

To create optimal online exam systems, developers should focus on: 1) designing intuitive and accessible interfaces, 2) incorporating engaging elements like gamification, 3) exploring the potential of AR/VR for immersive learning experiences, 4) utilizing NLP for more natural interactions, and 5) ensuring that the systems meet the needs of all students, including those with disabilities. By addressing these factors, online exams can become more effective, engaging, and inclusive learning tools.

## **2.3 Analyze existing solutions related to the research problem**

Existing solutions for evaluating the impact of user interface design on entrance exam systems included standardized testing platforms, adaptive learning systems, mobile applications, user-centric designs, and gamification elements. Standardized platforms like SAT and GRE offered straightforward navigation but often lacked personalization, which affected user engagement. Adaptive systems adjusted the interface based on performance, yet they could still overwhelm users with complex designs. Mobile applications aimed for accessibility but were not always fully optimized for smaller screens. While user-centric approaches prioritized ease of use, they sometimes fell short in layout and aesthetics. Gamification enhanced engagement but could distract from serious study.

Despite these advancements, several limitations persisted. Many solutions lacked comprehensive usability testing, leading to designs that did not cater to diverse user needs. There was often insufficient feedback from users, hindering the effectiveness of learning outcomes. Additionally, concerns around privacy and data security were prevalent, particularly in adaptive systems that collected personal data for personalization. Overall, while various solutions addressed UI design in entrance exam systems, significant opportunities for improvement remained in usability, user feedback integration, and tailoring experiences to individual needs.

## **3. METHODOLOGY**

### **3.1 Research Design**

This study used a quantitative research design to investigate the relationship between user interface (UI) design (independent variable) and the effectiveness of the entrance exam system (dependent variable). The study involved collecting and analyzing numerical data derived from participant responses to a structured survey. This approach allowed for the statistical analysis of relationships between UI design elements and system effectiveness, providing measurable insights into how different aspects of UI design affected user experience and performance.

### **3.2 Participants**

The participants for this study were the first-year students of South East Asian Institute of Technology (SEAIT) who took the entrance exam during the first semester of the school year 2024-2025. The sample size was determined based on the total number of eligible first-year students, ensuring adequate representation for statistical analysis. Inclusion criteria included students who completed the entrance exam using the institution's entrance exam system. Participation was voluntary. The total number of examinees was 3,816, and the researchers used simple random sampling to identify the total number of respondents. The calculated sample size was 350 respondents, which provided a reliable level of accuracy with a 95% confidence level and a 5% margin of error.

### **3.3 Data Collection**

Data were collected through surveys distributed to participants. The survey was designed to capture quantitative data on two primary aspects: User Interface Design and the Effectiveness of the Entrance Exam System. Students rated various elements of the UI (e.g., layout, navigation) using a Likert scale (1-4). Students also rated their perceived ease of use, satisfaction, and overall experience with the entrance exam system. The surveys were collected anonymously to encourage honest feedback. Demographic data such as age, gender, and experience with digital exams were also gathered to control for potential confounding variables.

### **3.4 Data Analysis**

The collected data were analyzed using statistical methods to identify correlations between the UI design elements and the effectiveness of the entrance exam system. Means, frequencies, and standard deviations were calculated to summarize the participants' responses to the survey questions. A Pearson correlation was used to determine the strength and direction of relationships between specific UI design elements and the perceived effectiveness of the entrance exam system.

### **3.5 Ethical Considerations**

The research prioritized participant privacy and data security. Informed consent was obtained from all participants, with the option to withdraw at any time. Participant identities were anonymized in any published findings. Ethical guidelines for HCI research were followed, ensuring that no harm or discomfort was caused to participants during the study.

## **4.0 ADVANCED HCI SYSTEM DESIGN**

### **4.1 System Architecture**

The proposed examination system design showcases a sophisticated Human-Computer Interface (HCI) architecture built around user-centric design principles. The system features a clean, modern user interface with a responsive design that includes a top navigation bar displaying the institution logo, time indicators, and progress tracking. The examination interface is structured with multiple functional areas, including a left sidebar for question navigation and a main content area for displaying questions and answer options. The interactive elements are presented as distinct, color-coded cards (blue, turquoise, orange, and pink) that serve as answer selection options. The platform incorporates a user profile management system that displays personal information, academic progress, and course recommendations. There's a sophisticated scoring mechanism that tracks performance, as evidenced by the score display and a completion percentage indicator. The system also includes a course recommendation engine that suggests relevant academic programs based on user performance and preferences.

The platform employs a clear visual hierarchy with consistent styling elements, rounded corners, and a color scheme that emphasizes important interface elements. Navigation controls are implemented through "Previous" and "Next" buttons, along with a submit option, allowing for structured progression through the examination process. The architecture is built with modern web technologies, emphasizing user experience through intuitive design patterns and clear information architecture, while maintaining robust functionality for educational assessment purposes.

### **4.2 Features and Functionalities**

- User-Centric Interface Design

In a recent survey using a 4-point scale, the average response from students who used the old version of the exam interface was 2.88, indicating that the previous UI was slightly above average. The new proposed system,

however, adopts a user-centric design that prioritizes simplicity and functionality. It features a clean, minimalist layout aimed at reducing cognitive load. Key enhancements include a clear visual hierarchy with consistent styling, color-coded answer options (blue, turquoise, orange, and pink) for easier navigation, a progress indicator to show exam status, and a timer display to help students manage their time effectively. These improvements address common user frustrations by offering clear visual cues and minimizing confusion during the exam process.

- Navigation and Control Systems

The survey result for the UI Design Navigation Element scored 2.86, indicating a need for improvements. The proposed system addresses this by introducing several enhancements to streamline navigation and user experience. It features clearly labeled "Previous" and "Next" buttons for intuitive movement between questions, and a prominently colored "Submit" button to ensure it stands out as a final action. Additionally, a left sidebar highlights any unanswered questions (e.g., Questions 2 and 4), helping users keep track of their progress. The use of a question numbering system (e.g., 5/10) further provides a clear progress indicator. Together, these elements aim to improve system efficiency by enabling smoother navigation and reducing error rates through easily recognizable action cues.

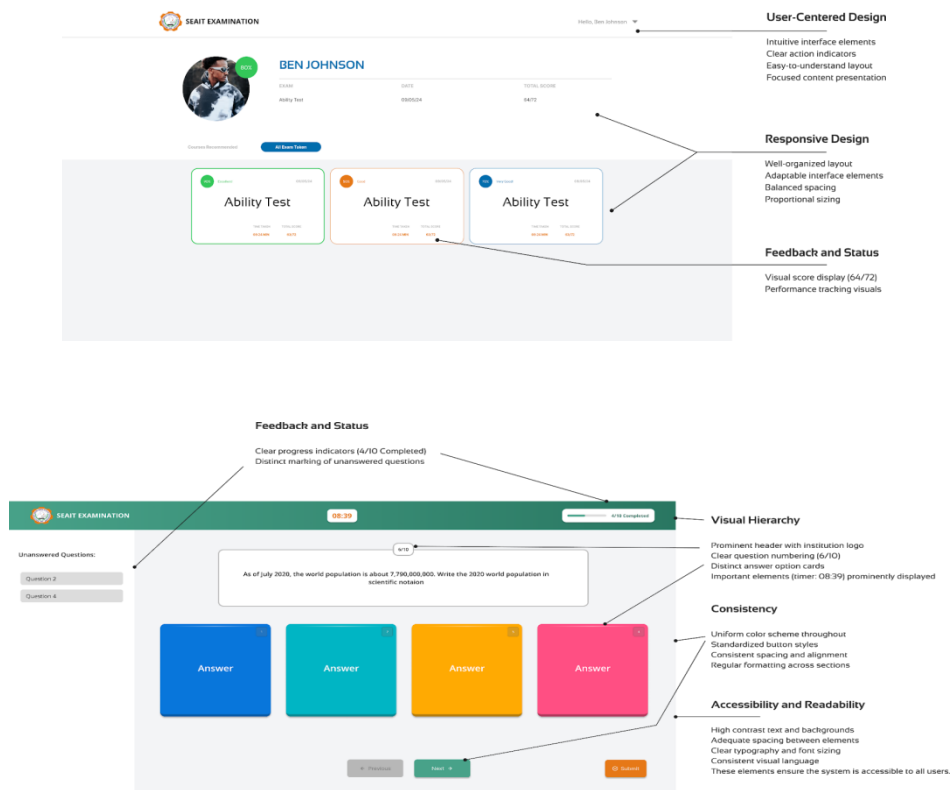
- Information Architecture

The proposed system emphasizes a hierarchical organization of content with a clear separation of different functional areas, ensuring that users can easily navigate through the interface. It maintains a consistent layout across various sections, which helps users familiarize themselves with the interface structure quickly. Additionally, a well-structured question and answer format is implemented to provide clarity and coherence during interactions. These design elements work together to enhance usability by establishing an intuitive flow of information, making it easier for users to understand and engage with the system.

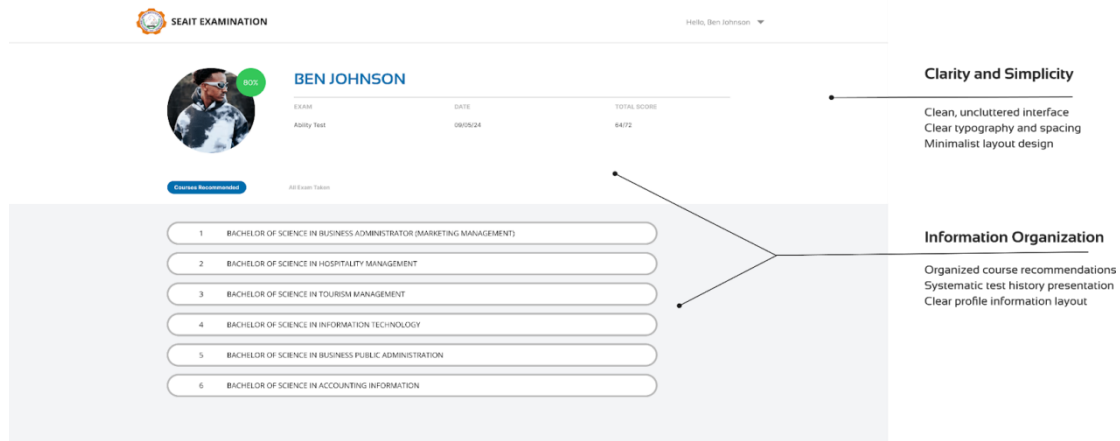
- Accessibility and Readability

The proposed system incorporates high-contrast text and backgrounds, adequate spacing between elements, clear typography with appropriate font sizing, and a consistent visual language throughout. These design choices are aimed at enhancing accessibility, ensuring that all users, including those with visual impairments, can easily read and interact with the interface. By prioritizing legibility and a clean, cohesive visual presentation, the system effectively accommodates a diverse range of user needs.

### 4.3 User Interface Design







## 5.0 EVALUATION AND RESULTS

### 5.1 Usability Testing

The usability testing focused on first-year students of the South East Asian Institute of Technology (SEAIT), with a total of 350 participants selected through simple random sampling from the 3,816 eligible examinees. Participants evaluated the institution's entrance exam system based on predefined parameters: layout, navigation, perceived ease of use, satisfaction with the interface, clarity of instructions, responsiveness of the system, contribution to error reduction, and overall user experience.

The testing was conducted using structured surveys where participants rated their experiences on a Likert scale (1 - Strongly Disagree to 4 - Strongly Agree). The survey aimed to identify system strengths and weaknesses and explore opportunities for improvement, particularly in the relationship between user interface (UI) design elements and system effectiveness.

User feedback was collected through surveys distributed to participants to encourage honest responses. Quantitative data were aggregated and analyzed to calculate means, frequencies, and standard deviations across all parameters. A Pearson correlation was used to identify the strength and direction of relationships between UI design elements and the perceived effectiveness of the entrance exam system. Results were segmented by demographic factors such as age and gender, with digital exams to identify variability in user responses, providing actionable insights into UI design improvements.

### 5.2 Performance Metrics

To evaluate the performance of the system's UI, we utilized a single key metric: the User Satisfaction Score, measured through a Likert scale. This metric directly addresses all three research questions by capturing participants' overall perceptions of the UI's impact on their experience. It provides insights into how the user interface design affects the overall user experience, efficiency, and accuracy of the exam-taking process. By gathering feedback on aspects like comfort, ease of use, and user satisfaction, the Likert scale helps identify both successful design elements and areas that require improvement.

The User Satisfaction Score also helps address specific elements of the UI that contribute to improving or hindering the exam system's efficiency and accuracy. Positive responses indicate that the UI design facilitates smooth navigation, task completion, and clarity, while negative responses highlight potential issues, such as difficulties with navigation, layout, or task structure. Additionally, this score provides valuable feedback on the perceived ease of use, linking to the third research question regarding UI optimization. Analyzing the results of the Likert scale helps pinpoint areas for improvement and guides future design adjustments to enhance the overall effectiveness of the exam system.

### 5.3 Comparative Analysis

The survey results for the old version of the entrance exam system, based on a 4-point scale, show an average range of scores between 2.81 and 2.95 across various questions. The UI elements with relatively low ratings include questions such as Q8 ("The design of the system reduced my chances of making mistakes, such as misclicking") with

an average of 2.81, and Q4 ("The system allowed me to complete the exam without unnecessary delays or confusion") with an average of 2.84. These lower scores indicate that users found the system somewhat challenging in terms of reducing errors like misclicking, as well as experiencing delays or confusion during the exam process. In contrast, questions about general comfort and ease of use, such as Q6 ("I found it easy to review and submit my answers"), received higher scores around 2.92, suggesting that while users were generally satisfied with certain functional aspects, specific UI elements related to error reduction and flow could benefit from improvement.

Comparing these results to the proposed UI design solutions, the existing system's limitations are more apparent in areas of navigation, error prevention, and overall efficiency. The new design addresses these concerns by incorporating clearer visual hierarchies, color-coded navigation buttons, and progress indicators, which aim to reduce confusion and improve task completion rates. The proposed design's minimalist layout is intended to streamline user interaction, while the use of clear instructions and consistent button designs aims to mitigate misclicks and delays, offering a smoother, more intuitive experience. However, while the new system shows promise in improving efficiency, it remains essential to continue refining these features, ensuring they align with users' needs for accuracy, speed, and error-free performance.

### 5.4 Results and Findings

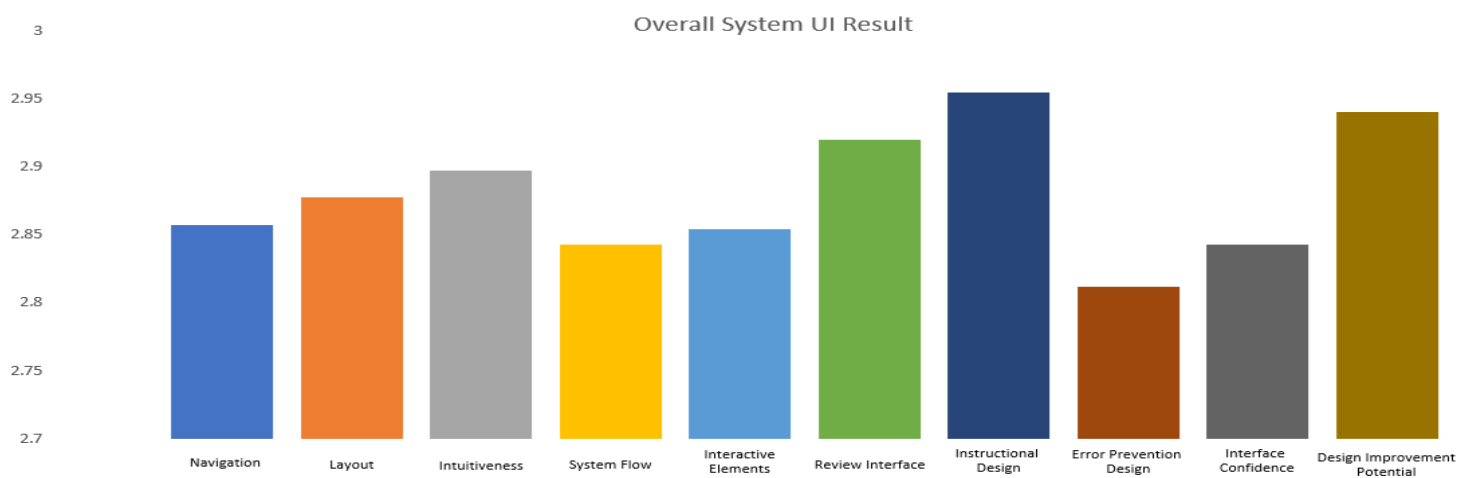
The results of the usability testing and survey evaluation reveal several notable patterns and potential areas for improvement in the entrance exam system's user interface (UI). The overall survey data, with a mean score of 2.88, suggests general satisfaction with the system's UI, but the correlation results indicate a more complex user experience. One unexpected finding is the very low correlation between many of the survey questions. For example, Q1 ("The user interface design of the entrance exam system is easy to navigate") and Q2 ("The layout of the exam interface helps me concentrate better during the test") show a correlation of only 0.005, indicating that users' perceptions of navigation ease are largely independent of their concentration during the test.

Demographic analysis reveals that younger users (18 and below) tend to give slightly higher ratings compared to older users, indicating a potential age-based preference in UI design. Gender differences in ratings were minimal, suggesting that the interface is generally perceived similarly across genders. These insights suggest the need for a more integrated approach to UI design, where improvements are aligned across different features to enhance the overall user experience.

## 6.0 DISCUSSION

### 6.1 Interpretation of Findings

- Research Question 1: "How does the user interface design of the entrance exam system affect the overall user experience and effectiveness in test-taking?"



The overall average score of 2.88 suggests that users perceive the existing UI as generally functional but with room for improvement. The weak correlations between most survey questions indicate that different aspects of the UI (e.g., navigation ease, layout, error prevention) do not always align in users' experiences. This implies that while some elements of the system (such as clear buttons and easy navigation) are appreciated, they may not work cohesively with other features (like layout or instructions), leading to less effective overall experiences. These findings suggest that the UI design has a moderate impact on the user experience but might not fully optimize the test-taking process, as various elements appear to function independently from each other.

- Research Question 2: "What specific elements of the user interface design contribute to improving or hindering the efficiency and accuracy of the entrance exam system?"

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Q1	1									
Q2	0.005005	1								
Q3	0.118608	0.05841	1							
Q4	0.186236	0.143422	0.111	1						
Q5	0.087543	0.089508	0.166246	0.210878	1					
Q6	0.136757	0.136967	0.19947	0.05783	0.098476	1				
Q7	0.155669	-0.00554	0.060743	0.053979	0.056497	0.161881	1			
Q8	0.159481	0.044976	0.152808	0.037485	0.11836	0.189887	0.054728	1		
Q9	0.089018	-0.037	0.041697	0.008654	0.039194	0.082455	0.145186	0.139013	1	
Q10	0.17839	-0.05209	0.085954	0.106631	0.086233	0.144173	0.146239	0.1047	0.011126	1
Total Scores	0.077091	0.042113	0.057028	-0.02041	-0.10652	0.075278	0.106052	0.13182	0.051516	0.143687

The low correlations between key elements (such as Q1 on navigation and Q2 on concentration) reveal that improving individual UI components may not necessarily lead to a more integrated or efficient system. For example, although users report feeling that the system's buttons and options were clear (Q5), the relatively low score for Q8 ("The design of the system reduced my chances of making mistakes") implies that some UI elements, such as button placement or visual cues, may not effectively prevent errors like misclicking. Similarly, the question about the system helping users complete the exam without confusion (Q4) also received a lower score, indicating that despite some intuitive UI elements, the overall system efficiency may be hindered by a lack of cohesion among different interface elements. This suggests that improving UI accuracy and task completion rates requires addressing individual elements in combination rather than in isolation.

- Research Question 3: "In what ways can the user interface design of the entrance exam system be optimized to enhance the effectiveness of the system for the examinees?"

The weak correlations and low scores for certain aspects of the UI indicate that optimization efforts should focus on integrating different elements of the design to create a more seamless and cohesive user experience. For example, a better alignment between navigation, visual hierarchy, and feedback mechanisms could enhance both the accuracy and efficiency of the system. By addressing issues such as reducing misclicks (Q8) and improving task completion (Q4), the system can be optimized to support users more effectively throughout the test-taking process. The findings suggest that a more holistic approach to UI design is needed, focusing on creating synergies between navigation, error reduction, and task completion to improve overall test efficiency.

**6.2 Contributions and Innovation**

This research contributes to the Human-Computer Interaction (HCI) field by offering valuable insights into how user interface (UI) design impacts the effectiveness and user experience of digital exam systems. The study highlights the importance of intuitive navigation, clear visual hierarchy, and efficient task flow, providing a framework for designing user-centric interfaces that can improve task performance and reduce cognitive load. By incorporating measurable metrics such as user satisfaction, task completion rates, and error rates, the research establishes a direct connection between UI design elements and exam success. These findings can inform best



practices for designing educational platforms, ensuring that UI design is not only functional but also promotes optimal user engagement and performance.

The proposed solution introduces several innovative aspects that enhance both the usability and effectiveness of the entrance exam system. One key innovation is the integration of color-coded elements and clear progress indicators, which help users navigate the exam with greater ease and reduce the likelihood of errors. Additionally, the minimalist layout design reduces cognitive overload, allowing users to focus more on the content rather than being distracted by the interface. These design choices contribute to an efficient, user-friendly system that can be optimized for various user needs. This research's application of user-centered design principles and emphasis on reducing friction in the user experience can serve as a reference point for future HCI research in educational technology and beyond.

### **6.3 Limitations and Future Work**

While the study provides valuable insights into the relationship between UI design and user experience in entrance exam systems, there are several limitations to consider. One limitation is that the study focuses on specific UI elements, and while these are important, other factors such as system performance and environmental factors may also influence the effectiveness of the exam system. The study also relied on subjective user satisfaction scores, which, though useful, may not fully capture the nuances of individual user experiences or account for all variables affecting performance.

For future research, it would be beneficial to explore a broader range of UI elements and conduct longitudinal studies to assess how users adapt to the system over time. While the current study included basic demographic data such as gender and age, expanding the research to incorporate a wider variety of demographic factors, such as education level, tech-savviness, and cultural backgrounds, could provide deeper insights into how these variables influence user interaction with the system. Furthermore, future studies could focus on incorporating real-time analytics and feedback mechanisms to continuously refine the UI design based on user behavior, ultimately improving the system's adaptability and long-term usability.

## **7.0 CONCLUSION**

### **7.1 Summary of Key Findings**

This study explored the impact of user interface (UI) design on the user experience and effectiveness of an entrance exam system. The key findings suggest that while the system's design generally received positive feedback, there are areas for improvement. The highest-rated features include the instructional design (Q7), improvement potential (Q10), and review interface (Q6), all of which contribute to a more user-friendly and efficient experience. However, certain aspects, such as error prevention (Q8), system flow (Q4), and interface confidence (Q9), received lower ratings, indicating that these elements could benefit from further refinement to enhance overall usability. Notably, the study found that most responses clustered around a rating of 3 (satisfied) on the 4-point scale, with very few extremely negative ratings, suggesting a generally favorable view of the system.

In terms of demographics, younger users (18 and below) tended to rate the system slightly higher, while gender differences had minimal impact on the ratings. These findings highlight the importance of continuously improving the system based on user feedback. Areas for improvement, such as optimizing system flow, strengthening error prevention mechanisms, and enhancing interface confidence, should be prioritized in future iterations of the design. By addressing these weaknesses and considering the diverse needs of users, the system's UI can be further optimized to enhance the effectiveness and satisfaction of examinees.

### **7.2 Final Remarks**

The results of this study provide valuable insights into how specific elements of the UI design affect user experience in an entrance exam system. Although the current system received generally positive feedback, there is significant room for improvement, particularly in error prevention, system flow, and user confidence in the interface. Addressing these areas will contribute to a more efficient, intuitive, and enjoyable exam-taking experience. The findings also suggest that younger users tend to have a more favorable opinion of the system, indicating the potential need for more age-inclusive design considerations in future UI updates. Moving forward, ongoing user-centered design improvements and iterative testing are essential to ensure the system evolves to meet the needs of all users effectively.

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APPENDICES

Survey Questionnaire

Name(optional): \_\_\_\_\_

Course: \_\_\_\_\_

This survey is being conducted for research purposes to gather feedback on the user interface design of the entrance exam system. Your responses will help improve the system to better serve future examinees. Participation is voluntary, and all information provided will remain confidential and used solely for the purposes of this study. Thank you for your time and valuable insights.

**Instructions:** Please rate each of the following statements based on your experience with the Entrance Exam System's User Interface Design. Use the scale from 1 to 4:

**1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree**

**Demographics**

1. Gender:

Male     Female     Prefer not to say

2. Age:

18 and below     19-25     26-30     31 and above

**User Interface Design Feedback**

1. The user interface design of the entrance exam system is easy to navigate.  
 1     2     3     4
2. The layout of the exam interface helps me concentrate better during the test.  
 1     2     3     4
3. I felt comfortable using the system without needing assistance from others.  
 1     2     3     4
4. The system allowed me to complete the exam without unnecessary delays or confusion.  
 1     2     3     4
5. The buttons and options were clear, and I did not experience errors when selecting answers.  
 1     2     3     4
6. I found it easy to review and submit my answers using the system's design.  
 1     2     3     4
7. The instructions provided by the system were clear and helped me understand how to use it.  
 1     2     3     4
8. The design of the system reduced my chances of making mistakes, such as mis clicking.  
 1     2     3     4
9. The system's interface made me feel confident about completing the exam accurately.  
 1     2     3     4
10. I believe the user interface could be improved to further enhance the exam experience.  
 1     2     3     4
11. Total Score (in the Entrance Exam):  
 30-35     36-40     41-45     46 and above