

Usability Evaluation of the UT Radio Website of Universitas Terbuka Using the System Usability Scale (SUS) Method

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Abstract

The UT Radio website is one of Universitas Terbuka's digital innovations that serves as a medium for disseminating academic information, distance learning, and educational entertainment for the academic community. However, its usability level has not yet been empirically evaluated. This study aims to analyze user satisfaction and usability quality of the UT Radio website using the System Usability Scale (SUS) method. A descriptive quantitative approach was employed, involving 60 respondents consisting of students, lecturers, and administrative staff of Universitas Terbuka. Data were collected through observation, interviews, and the SUS questionnaire, which includes ten statements measured on a five-point Likert scale. The analysis was conducted based on SUS scores interpreted with adjective ratings, grade scale, and acceptability range. The findings show that the average usability score of the UT Radio website is 74, which falls into the "Good" category, with a C grade and an "Acceptable" level of acceptance. This indicates that the system has met aspects of ease of use, efficiency, and user satisfaction. Nevertheless, improvements are still required in several aspects, such as interface consistency, access speed, and feature interactivity. This research provides practical contributions for e-learning system developers and higher education digital media managers in improving user experience quality for web-based services.

Keywords: User Satisfaction, System Usability Scale (SUS), UT Radio, Website.

1. Introduction

The development of information and communication technology has driven significant transformations in the administration of higher education, particularly in institutions that implement open and distance learning (ODL) systems. The use of digital platforms allows students to access learning materials, academic information, and institutional services flexibly without the constraints of space and time. In this context, the success of implementing learning technology is not only determined by the availability of features but also by the level of usability and user experience (UX). Recent research shows that digital platforms with high usability are more capable of retaining users, increasing their engagement, and minimizing frustration levels in the learning process (Nery et al., 2024). Platforms with good usability allow users to complete tasks effectively, efficiently, and comfortably, thereby impacting the increase in user satisfaction and engagement in the learning process.

University of Terbuka (UT), as a higher education institution that implements the ODL system, has developed various digital services to support independent learning and academic

communication. One of these innovations is UT Radio, a website-based radio service that provides educational broadcasts, academic information, and learning support content. The presence of UT Radio serves as a communication medium that bridges the interaction between the institution, students, and the wider community. In the ODL environment, educational streaming platforms such as web-based radio have great potential in expanding access to information and strengthening the digital learning ecosystem. The use of websites as digital media has now become the primary means of supporting educational activities, promotion, and the dissemination of academic information in various universities (Gorla et al., 2022). In the context of distance learning, websites play a crucial role as interfaces that connect institutions with students and the wider community, as they can provide quick, efficient, and easily accessible access (Susanto & Pratama, 2023).

The usability evaluation of the Tiket.com platform indicates that the acceptance level in the Marginal category with Grade D (Putri and Liu, 2024). According to the findings of the research, a usability evaluation of the BSI Mobile Banking application is still necessary for its implementation in order to gauge its degree of usability and user satisfaction (Adilla, et al., 2022). Even platform like Tiket.com and BSI Mobile still need improvement in terms of user satisfaction. Nevertheless, the effectiveness of digital services is greatly influenced by the quality of interface design and the ease of system use. This is in line with the research findings (Nery et al., 2024), which found that the average SUS score for university websites is 63.82, relatively lower compared to other platforms such as mobile applications or multimedia systems. Usability evaluation becomes a crucial instrument in ensuring the effectiveness of various digital innovations and pedagogical models, whether in enhancing campus information experiences thru virtual tour technology (Wibowo et al., 2022), ensuring the safety and accuracy of health services in electronic prescription systems (Arabian et al., 2026), or in validating the readiness for implementing culture-based learning models for early childhood education (Saearani et al., 2026).

Research in the field of educational technology shows that low usability on university websites can be a barrier to the utilization of digital services by users. Inconsistent appearance, complex navigation, and suboptimal system performance can reduce user interest and comfort in accessing services. Previous studies have shown that the average SUS score on university websites is still in the moderate category, indicating that further development is needed to reach optimal quality standards. Various studies emphasize that the quality of usability is closely related to user satisfaction and the effectiveness of digital learning. A study by (Prasetya, 2024) emphasizes that platforms that do not meet usability principles will hinder learning effectiveness, especially in systems used independently in online learning. (Sembodo et al., 2021) highlight that the success of modern information systems is not only determined by the completeness of features but also by how easily the system can be understood and used by its users. In the context of educational institutions, systems that are difficult to understand can reduce user participation levels and hinder the dissemination of academic information. Research findings (Permana, 2019) emphasize that the improvement in the quality of digital services is often directly related to user satisfaction and comfort levels, especially in operational applications and information services that are used intensively.

This relevance also applies in the context of university digital services, including media websites like UT Radio. (Welda et al., 2020) found that a positive user experience on digital systems is greatly influenced by attractive visual design, clear navigation structure, and consistent appearance. Several previous studies have shown that systems with low usability can decrease user satisfaction and negatively impact the effectiveness of information delivery (Alqahtani, 2019; Setiawan & Hidayat, 2023). The aspect of user satisfaction has been proven

to increase when the platform provides an intuitive and non-confusing interaction flow, thereby reinforcing the argument that usability is a key element in the success of web-based and application-based digital services. Thus, the development and evaluation of UT Radio's usability become essential to ensure that this platform truly meets user needs.

A system that is easy to understand and operate tends to increase user participation and strengthen the delivery of academic information. In addition, a positive user experience is greatly influenced by attractive visual design, clear navigation structure, and consistent interface appearance. Thus, usability evaluation of digital services like UT Radio becomes important to ensure that the platform can optimally meet user needs. One of the widely used methods in usability evaluation is the SUS. This instrument was developed as a standard measurement tool capable of quantitatively assessing users' perceptions of system ease of use and satisfaction. SUS is known to have high reliability and is easy to apply to various types of digital systems, including web-based educational platforms.

The System Usability Scale method has proven to be an effective evaluation instrument in measuring the acceptance and usability of various digital technology innovations, ranging from educational chatbots (Hidayat et al., 2022), web-based student information systems (Oktaviani et al., 2022), digital library services (Pratiwi et al., 2023), electronic financial transaction platforms (Alisya et al., 2023), to community health management applications (Hasan et al., 2025). In addition to providing an overview of the overall usability level, SUS analysis can also be mapped into five dimensions of usability according to the model (Nielsen, 2012), namely learnability, efficiency, memorability, errors, and satisfaction, thereby enabling a more comprehensive evaluation of the user experience.

Although the SUS method has been widely used in the evaluation of online learning systems, research specifically examining the usability of web-based educational broadcasting platforms like UT Radio is still limited. This research gap is the limited number of studies that specifically evaluate the usability of web-based educational broadcasting platforms such as UT Radio, as most previous studies have focused on Learning Management Systems (LMS) and mobile applications. This study emphasizes the evaluation of the usability of digital broadcasting media websites that support distance learning. Therefore, this study aims to evaluate the usability level of the UT Radio website using the System Usability Scale (SUS) method and to analyze user perceptions in terms of effectiveness, efficiency, and satisfaction. The research results are expected to provide an empirical picture of the quality of user experience while also serving as a basis for recommendations for the sustainable development of digital services at Universitas Terbuka.

2. Method

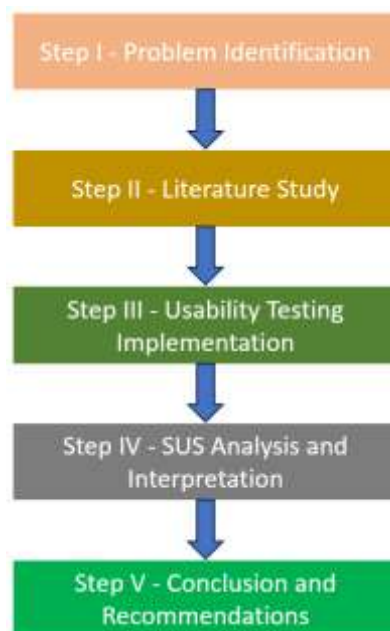
This research uses a descriptive quantitative approach with the System Usability Scale technique to measure user satisfaction with the UT Radio Universitas Terbuka website service. This approach aims to provide an empirical picture of the level of ease of use, efficiency, and user satisfaction with the system (Brooke, 1996; Bangor et al., 2009). The usability testing method allows researchers to directly observe user interactions with the system in real conditions, then assess the level of usability using the SUS instrument. The analysis results are used to determine user satisfaction levels and recommend improvements to the system's interface and functionality.

Based on Figure 1, the research stages are carried out thru five main steps. Problem identification is focused on the lack of empirical evaluation regarding the usability level of the UT Radio website. This stage serves as the foundation for formulating the research objectives and the direction of the analysis conducted. Literature Study and Instrument Design, the researcher conducted a literature review related to usability testing and the SUS instrument.

Based on this review, research instruments were developed in the form of observation sheets, interview guidelines, and the SUS questionnaire to ensure methodological appropriateness. Implementation of Usability, Usability testing was conducted thru observation of respondents' interactions while using the UT Radio website, after which respondents filled out the System Usability Scale questionnaire consisting of ten five-point Likert scale statements. This instrument is used to measure users' subjective perception of the system's usability. Data Analysis and SUS Score Interpretation, data from the SUS questionnaire is processed to obtain the average usability score. The results are then interpreted using three references, namely adjective ratings (e.g., Excellent, Good), grade scale (A–F), and acceptability range (Acceptable, Marginal, Not Acceptable). Conclusion and Recommendations, the final stage of the research, involves drawing conclusions about the overall usability level of the UT Radio website. In addition, practical recommendations are also provided for developers, particularly regarding the improvement of interface consistency, access speed, and feature interactivity.

Figure 1

Flowchart of Research Stages



The research subjects consist of users of the UT Radio website, including students, lecturers, and educational staff of Universitas Terbuka. The total number of respondents was 60, consisting of 24 students (40%), 20 educational staff (33.3%), and 16 lecturers (26.7%). The characteristics of the respondents reflect a diversity of technological experiences and expectations for using digital systems. The literature indicates that the composition of respondents can influence perceptions of usability, where differences in age, education level, and digital experience can result in variations in SUS scores (Nery et al., 2024). Therefore, this study adopts purposive sampling, which is appropriate for non-randomised selection based on predefined criteria (Sugiyono, 2020). These techniques consider demographic diversity to ensure a broad representation of users. The sampling was conducted using purposive sampling techniques, with the following criteria:

1. Have accessed the UT Radio website at least twice in the past month.
2. Able to use digital devices (laptop or smartphone).
3. Willing to participate in the testing process and fill out the SUS questionnaire.

The data collection techniques used are direct observation when users interact with the website, brief interviews to obtain the context of user experience, and the SUS questionnaire as the main measurement tool for satisfaction and usability. Primary data were collected directly from respondents participating in the testing. Meanwhile, secondary data were obtained from the documentation of the UT Radio website, literature related to usability, and previous research findings. Meanwhile, the data analysis was conducted descriptively quantitatively, using the standard SUS formula to calculate the final score from all respondents. The calculation steps are as follows (Brooke, 1996):

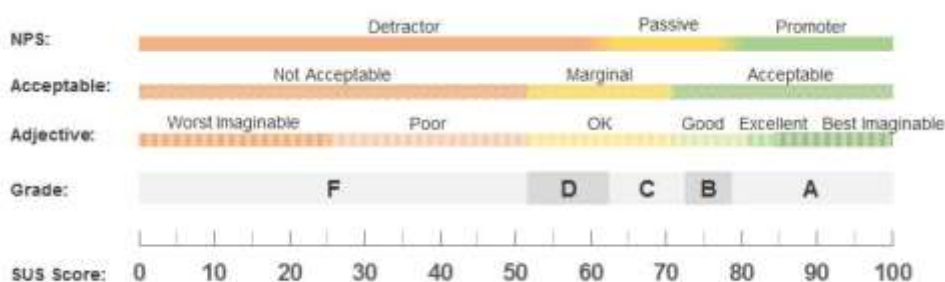
1. For odd items (1, 3, 5, 7, 9) → Contribution score = Respondent score – 1.
 2. For even items (2, 4, 6, 8, 10) → Contribution score = 5 – Respondent score.
 3. Sum all contribution scores from the 10 items.
 4. Multiply the total score by 2.5. See formula (1) to get the SUS score in the range of 0–100.
- $$SUS = (\sum_{i=1}^{10} X_i) \times 2.5$$
- with:

$$X_i = \begin{cases} r_i - 1, & \text{if "i" is odd (positive statement)} \\ 5 - r_i, & \text{if "i" is even (negative statement)} \end{cases}$$

Based Figure 2, the average SUS score of 68 is considered the threshold for acceptable usability. The calculated data were then interpreted descriptively to assess the aspects of satisfaction, ease, and effectiveness of using the UT Radio website.

Figure 2

Score interpretation based on the research by Bangor et al. (2009)



3. Results

UT Radio, in addition to serving as an information medium, also plays a role as an interactive educational platform for students and lecturers. The UT Radio website (<https://utradio.ut.ac.id>) allows users to access live broadcasts (streaming), news, and learning content anytime and anywhere. As the number of users increases, a systematic evaluation of the website's usability is necessary to ensure that the user experience remains effective, efficient, and satisfying. With the growing need for digital interaction, it is important for UT to ensure that the UT Radio website has a high level of usability, both in terms of navigation ease, display clarity, and user satisfaction. Therefore, a usability test was conducted using the SUS method to measure user satisfaction with the website.

The profile and characteristics of respondents are important components in usability research, considering that users' perceptions of ease of use and interaction quality are greatly influenced by demographic factors. In this study, a total of 60 respondents from the Open University environment were involved, consisting of students, lecturers, and educational staff. Demographic variations include an age range of 20 to 55 years, different levels of education, and varying intensities of digital technology usage. Table 1 presents the distribution of

respondent characteristics.

Table 1
Characteristics of Research Respondents

Age Criteria (Years)	Range/Description	Number (n)	Percentage (%)
20 - 25	Active Student	24	40,0
26 - 35	Educational Staff	20	33,3
36 - 55	Lecturer and Staff	16	26,7
Total		60	100

Based on Table 1, most of the respondents came from the student group (around 40%), who are the main users of the UT Radio website. The literature emphasizes that the composition of respondents significantly affects the generalization of SUS results. According to (Nery et al., 2024), students often dominate usability research on educational technology, but involving educational staff and lecturers is important to broaden data validity, considering that each group has different expectations regarding the features and functionalities of the system. Younger respondents tend to give higher SUS scores due to their familiarity with digital technology, while older age groups may provide lower ratings due to challenges in adapting to web-based systems. Demographic findings in this study align with the literature stating that age, education level, and technology experience influence usability perception (Nery et al., 2024). This emphasizes the importance of considering respondent characteristics in result interpretation to avoid perception bias due to variations in technology proficiency.

Evaluation of the System Usability Scale

According to the SUS interpretation standards by Bangor et al. (2009), an average score of 74 falls into the "Good" category and grade C, which is at the "Acceptable" level. With a score of 74, the UT Radio website falls into the Good category. This means the website has met most aspects of usability, although some aspects such as design consistency and access speed can still be improved..

Table 2
Average Score Results for Each SUS Item

No	SUS Statements	Average Score
1	I feel that I will use the UT Radio website often	3.9
2	The UT Radio website is too complicated to use	2.1
3	Website UT Radio ini mudah digunakan	4.2
4	The UT Radio website is easy to use	1.9
5	The features of the UT Radio website function as they should	4.0
6	There are inconsistencies in the appearance of the UT Radio website	2.2
7	Most people will quickly get used to using the UT Radio website	4.1
8	The UT Radio website feels confusing	2.0
9	I feel confident using the UT Radio website	4.3
10	I need to learn a lot before using the UT Radio website	1.8
Average Score for Each SUS Item		74.0

Based on Table 2, the research results show that the user satisfaction level with the UT Radio website is already in the good category (SUS 74). This indicates that web-based services

in the higher education environment have met global usability standards. If converted into a qualitative interpretation, the score indicates that users tend to feel confident and comfortable using the UT Radio website. However, there are still opportunities for improvement, especially in the aspects of consistency and esthetic design.

However, there are still several aspects that can be improved, especially in terms of consistency in appearance between pages, more intuitive navigation, and access speed on mobile devices. Improvements in these aspects will enhance the overall user experience and support UT's goal as an open and inclusive information technology-based university. Furthermore, based on the principles of Heuristic Evaluation (Nielsen, 2012), the UT Radio website has met most of the usability principles such as visibility of system status, user control and freedom, and esthetic and minimalist design. However, improvements are needed in the principle of consistency and standards to ensure a more uniform user experience across all pages. From the perspective of system development, these results provide concrete recommendations for the UT Radio management, including improving design consistency across pages to achieve a more uniform appearance, optimizing page loading times to enhance user experience, especially on mobile devices, and adding interactive media player and chat feedback features to strengthen user interaction.

Aspects of Learnability, Attractiveness, Memorability, and User Satisfaction

Analysis of each usability aspect is conducted to understand the details of the user experience. Data were obtained thru graphs in Figures 3–6, which reflect respondents' perceptions of ease of use, visual appeal, content relevance, and feature completeness. Learnability indicates the user's ability to quickly understand how the website works.

Figure 3

Chart Learnability Website UT Radio

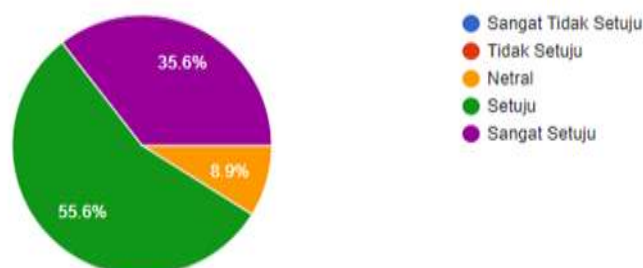
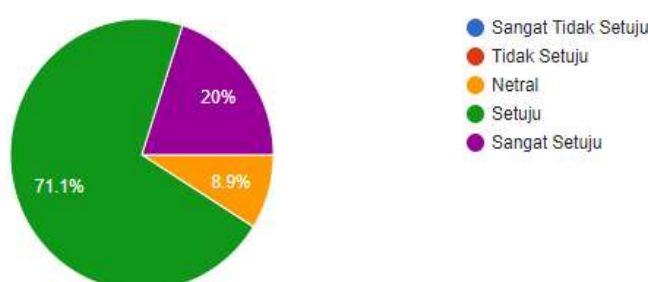


Figure 3 shows that 35.6% of respondents strongly agree and 55.6% agree that the UT Radio website is easy to use. This value indicates a high level of learnability. The literature emphasizes that learnability is an important aspect of usability, especially for educational platforms that must be accessible to various levels of technological proficiency (Nielsen, 2012).

Figure 4

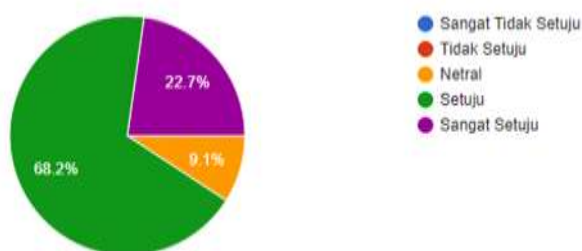
Chart of Interest in the UT Radio Website



Based on Figure 4, regarding the respondents' interest in the UT Radio Website, 71% of respondents agree and 20% strongly agree that the website's appearance is attractive, while 8.9% are neutral. This means that the website's interface design is considered quite modern and relevant to user preferences.

Figure 5

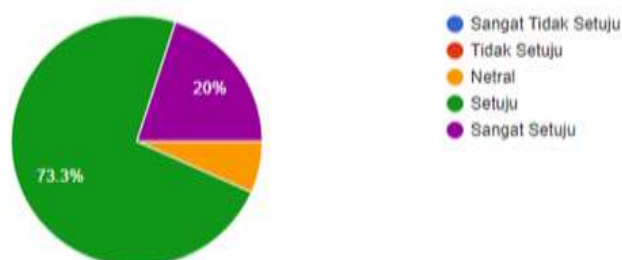
Chart Program and Content of the UT Radio Website



Based on Figure 5, the majority of respondents (68.2%) find UT Radio's programs relevant and easy to access, with 22.7% strongly agreeing and 9.1% neutral. This indicates that the content supports the educational function of UT Radio. The relevance of the content is very important in the context of educational technology, as it determines the meaningfulness of the learning experience and the effectiveness of platform usage.

Figure 6

Chart of UT Radio Website Features



Based on Figure 6, 73.3% of respondents agree that the features on the UT Radio website are complete and meet user needs. This indicates that users accept the overall service structure, although some respondents noted inconsistencies in appearance and slow access under certain conditions. Overall, these findings reinforce the SUS results that the UT Radio website has met good usability elements, but requires strengthening in aspects of visual consistency, intuitive navigation, and performance optimization to enhance the user experience.

The research results indicate that the usability level of the UT Radio website falls into the Good–Acceptable category, which signifies that the system is usable and capable of meeting the needs of the majority of users. The high SUS score is influenced by the quality of visual design, fairly clear navigation, and the dominance of respondents with good digital literacy. The SUS score of 74 indicates that the UT Radio website is generally comfortable and easy to use for most users. This suggests that users can interact with the system without significant difficulty. However, the score also implies that improvements are still needed, particularly in interface consistency, navigation intuitiveness, and system performance, to achieve a higher usability level (e.g., ‘Excellent’ category). Evaluation of the aspects of learnability, memorability, and satisfaction shows that the website has met most usability indicators, although improvements are still needed in visual consistency and access efficiency. These

findings indicate that the usability performance of the UT Radio website aligns with previous research standards and can serve as a foundation for the development of more optimal digital services.

4. Results and Discussion

The results of the usability evaluation of the UT Radio website using the System Usability Scale method provide an overview of the user experience in accessing the digital broadcasting services of Universitas Terbuka. The obtained SUS score indicates that users generally assess the UT Radio website as having a good level of ease of use, fairly clear navigation, and an interface that effectively supports access to information and learning content. These findings indicate that the UT Radio platform has met the basic usability standards of educational digital systems and is capable of providing a relatively positive interaction experience for users. The consistency of the results with the research (Setiawan & Hidayat, 2023; Alqahtani, 2019) indicates that an SUS score of 70–80 is the optimal threshold for digital education systems at the university level.

If compared to various other educational technologies, the SUS score of the UT Radio website falls within the range comparable to the average university websites reported in previous studies. This indicates that the usability quality of UT Radio falls within an acceptable category and aligns with the characteristics of web-based academic information platforms. The differences in SUS scores among educational platforms are generally influenced by the complexity of system functions and user characteristics. Platforms like Learning Management Systems tend to score higher because users are accustomed to instructional interaction patterns, whereas university websites often serve a more heterogeneous user base, requiring a more adaptive interface design. In this context, the SUS score of UT Radio indicates that the platform has been able to meet user needs, although there are still opportunities for improvement in terms of visual consistency and navigation efficiency.

User demographic characteristics also contribute to the perceived usability produced. User groups with higher levels of digital literacy tend to show better usage comfort compared to users with more limited technology experience. This variation indicates that the perception of usability is not only influenced by the quality of the system but also by the users' background in utilizing digital technology. Therefore, the interpretation of evaluation results needs to consider the diversity of user characteristics so that system development recommendations can be tailored to the needs of all user segments.

The use of the SUS method in this study demonstrates its advantages as a simple, reliable evaluation instrument capable of providing a quantitative picture of user perceptions of digital systems. Nevertheless, SUS has limitations in identifying detailed usability issues, such as information structure, user cognitive load, or the effectiveness of specific navigation flows. Therefore, the combination of SUS with a task-based testing approach and user feedback provides a more comprehensive analysis and enhances the reliability of the research results interpretation.

The findings of this research have practical implications for the development of digital services at Universitas Terbuka. Improving the usability quality of the UT Radio website has the potential to increase user engagement, strengthen access to academic information, and support the integration of other digital learning services. Strengthening a consistent interface design, optimizing system performance, and developing interactive features can enhance the overall user experience. Moreover, the continuous application of user-centered design principles has become an important strategy in the development of UT's digital service ecosystem.

Theoretically, this research strengthens empirical evidence regarding the relevance of the SUS method in evaluating digital education systems, particularly on web-based educational broadcasting platforms. The research findings also enrich the study of the influence of user characteristics on usability perception in remote learning environments. Thus, this research contributes to the development of usability evaluation standards for digital education services and serves as a reference for higher education institutions in improving the quality of technology-based learning platforms.

5. Conclusion

Based on the results of the usability testing using the System Usability Scale method on the UT Radio Universitas Terbuka website, an average score of 74 was obtained. This score places the UT Radio website in the "Good" category with a grade of C and an "Acceptable" level of acceptance according to the adjective ratings interpretation by Bangor et al. (2009). This condition indicates that the UT Radio website has a good level of usability, efficiency, and user satisfaction, making it suitable for use as a digital-based information, learning, and entertainment medium within the Universitas Terbuka environment. Users, especially students and lecturers, generally feel confident and comfortable when accessing the content and features provided.

Nevertheless, the research findings also identified several aspects that still need improvement to optimize the user experience. Inconsistencies in appearance between pages, a navigation structure that is not fully intuitive in some parts, and access speed on mobile devices are factors that could potentially lower the perception of usability if not addressed promptly. Optimization of visual design, standardization of interface elements, and improvement of technical performance—such as thru content compression, server management enhancements, or adjustments to responsive displays—can be the main focus of development in the next stage. Additionally, the addition of interactive features such as a more adaptive media player, user feedback mechanisms, and closer integration with other UT digital services is expected to strengthen user engagement and visit frequency.

This research asserts that the SUS method can be effectively used to evaluate the usability of web services in higher education environments, while also providing an empirical basis for system development decision-making. In the future, further research is recommended to combine SUS with other evaluation methods such as heuristic evaluation or the User Experience Questionnaire (UEQ) to identify more specific usability issues. Longitudinal studies with a broader respondent coverage, including representatives from various regional UTs and segmentation of non-student users, are also important to provide a more comprehensive and nationally representative picture of satisfaction and acceptance of the UT Radio website.

Further research is recommended to use Heuristic Evaluation or A/B Testing methods to identify specific areas for improvement in the user interface. Additionally, longitudinal studies can be conducted to assess changes in user satisfaction after system improvements are implemented. The next research involves a more diverse sample, including students from various regions, educational staff, and the general public, to obtain a more comprehensive picture of the satisfaction and acceptance of the UT Radio website on a national scale.

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References

- Adilla, R., Jazman, M., Ahsyar, T. K., & Hamzah, M. L. (2022). Evaluation Usability of Mobile Banking Applications Using Usability Testing (UT) Method and System Usability Scale (SUS). 2022 IEEE International Conference on Sustainable Engineering and Creative Computing (ICSECC), 78–83. <https://doi.org/10.1109/ICSECC56055.2022.10331348>
- A. Gorla, T. M. Somers, and B. Wong, “Organizational impact of system quality, information quality, and service quality,” *J. Strateg. Inf. Syst.*, vol. 31, no. 4, pp. 101–123, 2022, <https://doi.org/10.1016/j.jsis.2010.05.001>.
- Alisya, T., Hamzah, M. L., Saputra, E., Ahsyar, T. K., & Syaifullah. (2023). Evaluation of User Experience on ShopeePay Digital Wallet Using System Usability Scale (SUS) and User Experience Questionnaire (UEQ) Methods. 2023 3rd International Conference on Emerging Smart Technologies and Applications (eSmarTA), 01–06. <https://doi.org/10.1109/eSmarTA59349.2023.10293705>
- Alqahtani, A (2019). Usability testing of Google Cloud applications: Students’ perspective. *Journal of Technology and Science Education*, 9(3), 326-339. <https://doi.org/10.3926/jotse.585>
- Arabian, S., Hajesmaeel-Gohari, S., Zarei, A. H., Alizadeh Savareh, B., & Bashiri, A. (2025). Comprehensive usability evaluation of electronic prescription systems: Integrating expert and user perspectives. *BMC Medical Informatics and Decision Making*, 26(1), 15. <https://doi.org/10.1186/s12911-025-03308-w>
- Bangor, A., Kortum, P., & Miller, J. (2009). Determining what individual SUS scores mean: Adding an adjective rating scale. *Journal of Usability Studies*, 4(3), 114–123.
- Brooke, J. (1996). A quick and dirty usability scale. *Usability Evaluation in Industry*.
- D. Setiawan and A. Hidayat, “Evaluasi tingkat usability pada sistem pembelajaran daring menggunakan metode System Usability Scale (SUS),” in *Seminar Nasional Teknologi Informasi dan Pendidikan*, 2023, pp. 32–45, doi: 10.24036/tip.v16i1.560.
- Hasan, K., Maharani Putri Juhana, A., Zaki Devara, M., & Amalya Dewi, M. (2025). User Experience Analysis of Sports Community Management Applications Using System Usability Scale (SUS) Method. 2025 Tenth International Conference on Informatics and Computing (ICIC), 1–6. <https://doi.org/10.1109/ICIC68054.2025.11309544>
- Hidayat, A., Nugroho, A., & Nurfaizin, S. (2022). Usability Evaluation on Educational Chatbot Using the System Usability Scale (SUS). 2022 Seventh International Conference on Informatics and Computing (ICIC), 01–05. <https://doi.org/10.1109/ICIC56845.2022.10006991>
- Huda, N., Habrizons, F., Satriawan, A., Iranda, M., & Pramuda, T. (2023). Analisis Usability Testing Menggunakan Metode SUS (System Usability Scale) Terhadap Kepuasan Pengguna Aplikasi Shopee. *Simkom*, 8(2), 208–220. <https://doi.org/10.51717/simkom.v8i2.158>
- H. Rahman, A. Pratama, and R. Fadhilah, “Evaluating e-learning usability using the System Usability Scale (SUS): Case study at open university,” in *Proc. Int. Conf. Educ. Technol.*, 2023, vol. 10, no. 2, pp. 87–96.
- H. Susanto and R. Pratama, “Website usability and user experience in higher education institutions: An empirical review,” *J. Pendidik. Terbuka dan Jarak Jauh*, vol. 24, no. 2, pp. 101–115, 2023, doi: 10.33830/jptjj.v24i2.1234.
- Jiwa Permana, A. A. (2019). USABILITY TESTING PADA WEBSITE E-COMMERCE MENGGUNAKAN METODE SYSTEM USABILITY SCALE (SUS) (STUDI KASUS :

- UMKMBULELENG.COM). *JST (Jurnal Sains Dan Teknologi)*, 8(2), 149–158. <https://doi.org/10.23887/jstundiksha.v8i2.22858>
- Nery, M. P., Severiano José dos Santos Neto, Alves, R. S., João Vitor dos Santos Santana, Griza, S., & Martins, C. O. D. (2024). Development of Educational Software for Stainless Steel Selection and Evaluating Usability Using the System Usability Scale (SUS). *International Journal of Mechanical Engineering Education*, 53(4), 957–972. <https://doi.org/10.1177/03064190241266978>
- Nielsen, J. (2012). Usability 101: Introduction to usability. *Nielsen Norman Group*, 4(01). <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>
- Nur Cahyo Wibowo, Tri Lathif Mardi Suryanto, Mu'tasim Billah, & Fajar Annas. (2022). Evaluating the Usability of Virtual Tour Application Using the System Usability Scale (SUS) Method. *IJCONSIST JOURNALS*, 3(2), 1–7. <https://doi.org/10.33005/ijconsist.v3i2.65>
- Oktaviani, S., Wiguna, C., & Priyanto, A. (2022). Application of System Usability Scale (SUS) method in testing the usefulness of information system Student Creativity Program (PKM) based on website. 080001. <https://doi.org/10.1063/5.0107302>
- Prasetya, R. D., Khairy, F. M., Hibban, N., Rifa'i, D. B., & Pasya, R. I. (2023). PENGUJIAN USABILITY PADA WEBSITE KITABISA.COM MENGGUNAKAN METODE SYSTEM USABILITY SCALE (SUS). *METHODIKA: Jurnal Teknik Informatika Dan Sistem Informasi*, 9(2), 26–29.
- Pratiwi, P. Y., Ardwi Pradnyana, I. M., & Winda Damayanti, N. K. (2023). Usability Analysis on Digital Library Information System using System Usability Scale (SUS). 2023 International Conference on Electrical and Information Technology (IEIT), 293–298. <https://doi.org/10.1109/IEIT59852.2023.10335582>
- Putri, S. I and K. Liu (2024). Assessing Ticket.com App Usability Through the System Usability Scale (SUS) Method. *International Journal for Applied Information Management*, 4(1), 30–40. <https://doi.org/10.47738/ijaim.v4i1.73>
- Saearani, M. F. T., Sampurno, M. B. T., Chan, A. H., Alfarisi, S., Augustine, C., Colleen Wong, W. H. Y., & Mazlan, C. A. N. (2026). Development and usability evaluation of a creative movement model integrating traditional games for early childhood education. *Discover Education*, 5(1), 82. <https://doi.org/10.1007/s44217-025-01098-x>
- Sembodo, F. G., Fitriana, G. F., & Prasetyo, N. A. (2021). Evaluasi Usability Website Shopee Menggunakan System Usability Scale (SUS). *Journal of Applied Informatics and Computing*, 5(2), 146–150. <https://doi.org/10.30871/jaic.v5i2.3293>
- Sugiyono. (2020). Metode kajian Kuantitatif Kualitatif serta R&D. Alfabeta.
- Utomo, M. C. C., Mahmudy, W. F., & Anam, S. (2017). Kombinasi Logika Fuzzy Dan Jaringan Syaraf Tiruan Untuk Prakiraan Curah Hujan Timeseries Di Area Puspo – Jawa Timur. *Jurnal Teknologi Informasi Dan Ilmu Komputer*, 4(3). <https://doi.org/10.25126/jtiik.201743299>
- Welda, W., Putra, D. M. D. U., & Dirgayusari, A. M. (2020). Usability Testing Website Dengan Menggunakan Metode System Usability Scale (Sus)s. *International Journal of Natural Science and Engineering*, 4(3), 152–161. <https://doi.org/10.23887/ijnse.v4i2.28864>