

Analysis of the Usability of the Tinanggea Subdistrict Website Using the Usability Testing Method

Elda Indah Sanda Langi¹⁾, Isnawaty¹⁾, Frisilia Febiola¹⁾, Suci Wulandari¹⁾, Wa Ode Yurismawati¹⁾, Wa Rahmiyanti¹⁾, Awaliyah Fadhilatun Nisa¹⁾, Nindy Asmawaty¹⁾, Sheera Annisa¹⁾, Hasmina Tari Moko²⁾, Bambang Pramono¹⁾

¹⁾Department of Computer Science, Faculty of Engineering, Halu Oleo University

²⁾Department of Electrical Engineering, Faculty of Engineering, Halu Oleo University

Email: eldaindahsl1203@gmail.com; isnawaty@uho.ac.id, frisilia.febiolaa@gmail.com; pramitasuci632@gmail.com; waodeyuris@gmail.com; warahmiyanti@gmail.com; awaliyahfadhilatunis@gmail.com; nindyasmawaty0@gmail.com; sheeraannisa@gmail.com, hasmina.mokui@uho.ac.id, bambang.pramono@uho.ac.id

Accepted:
18 January 2026

Accepted After Revision:
10 February 2026

Published:
27 February 2026

Abstract

The Tinanggea Subdistrict website provides information and public services for the community at the subdistrict level and surrounding areas. However, the existence of a website must be supported by a good level of usability so that the information provided to users is conveyed properly. This study aimed to analyze the usability level of the Tinanggea Subdistrict website using a usability testing method. The research method used was descriptive with a task-based usability evaluation approach. Testing was conducted by involving eight people who were assigned as users of the website. The usability level was measured using the System Usability Scale (SUS) in the form of a questionnaire consisting of 10 questions. The SUS scores of each user were calculated and averaged to obtain the overall website usability score. The test results show that the Tinanggea Subdistrict website scored 51.1, indicating that it is usable but still not optimal. This study also shows that the website has implemented usability principles, especially in terms of ease of navigation and error prevention. However, the website still needs various improvements, particularly in terms of interaction efficiency, interface design consistency, and interactive service support, so that it can function optimally as a public service medium.

Keywords: Website, Tinanggea District, Usability Testing, ISO 9241-11, System Usability Scale (SUS)

1 INTRODUCTION

Information and communication technology is rapidly evolving. This ongoing progress has brought new innovations to all areas of human life. One such innovation is the e-government [1]. This aims to increase government transparency, effectiveness, and public access via official websites. Local government websites, including those for subdistricts and villages, are the main channels for public information, services, and communication with communities. However, a website's effectiveness depends heavily on its usability.

However, the existence of websites alone does not guarantee that the information and services provided can be optimally utilized by the community. Many government websites still face usability issues, such as confusing navigation, unclear information structure, and user-unfriendly interfaces. These problems can hinder

the public from accessing important information and reduce their trust in government's digital services [2].

Usability is a measure that assesses how easy it is to use a website interface [3]. Usability refers to the extent to which a system can be used effectively, efficiently, and satisfactorily by users in a specific context. A website with good usability is expected to make it easier for users to find information, complete tasks, and understand the available functions without experiencing significant confusion [4].

Evaluations of the usability of local government websites have been conducted extensively in the context of research to measure users' real experiences with public digital services. Empirical research shows that aspects such as learnability, efficiency, memorability, error, and satisfaction have a significant effect on ease of use and public satisfaction; therefore, they need to be evaluated on government websites that are directly used by the public. Thus, usability serves as a technical



indicator and a measure of the government's success in providing digital services that are truly useful and responsive to the needs of the community [5].

In the context of local government, usability evaluation is increasingly important because website users come from diverse backgrounds, including age, education level, and digital literacy levels. Previous studies have shown that sub-district and village government websites often do not fully consider ease of use; therefore, a systematic evaluation is needed to identify existing usability issues [6]. Usability evaluation is expected to reveal the obstacles faced by users when accessing websites and provide a basis for recommendations for future system improvement.

Based on this background, this study aims to analyze the usability level of the Tinanggea Subdistrict Website using the usability testing method. Through this approach, the study is expected to provide a realistic picture of user experiences when interacting with websites and serve as an evaluative basis for efforts to improve the quality of web-based information services.

2 LITERATURE REVIEW

2.1 Usability in Government Websites

Research on the usability of government websites has been conducted extensively in Indonesia, particularly at the local government and public agency levels. Previous studies have found that many government websites still face problems with navigation structure, menu clarity, and display consistency [1]. Other studies have shown that good content quality does not necessarily guarantee that a website is easy to use if usability aspects are not comprehensively considered [7].

Based on these findings, it can be concluded that usability issues on government websites are common and can occur at various levels of agencies. Websites that are already available and actively used still have the potential to cause difficulties for users if they are not designed and evaluated with usability in mind. Therefore, usability is a fundamental aspect of public service website development.

2.2 Usability Testing Methods in Website Evaluation

Several studies have applied usability testing methods to evaluate government websites. A usability analysis using sub-district-level e-government websites found that users still experienced confusion in navigation and information search [6]. Furthermore, the usability testing approach has been shown to be effective in describing the real experience of users compared to evaluation methods based on developer assumptions [5].

In addition, usability evaluation using the System Usability Scale (SUS) approach is widely used to assess

the usability of other government websites, such as in studies evaluating public service websites of government agencies. The results of the study show that SUS scores often reflect the need for improvements in terms of ease of use, navigation, and user satisfaction, thus providing a concrete image of the user experience when interacting with digital government services [8]. These findings confirm that the SUS-based usability testing method can complement traditional usability testing evaluations, especially in measuring quantitative user responses relevant to the development of sub-district government websites.

These findings show that usability testing functions not only as a measuring tool but also as a means of directly understanding user behavior. By observing how users complete specific tasks, researchers can identify usability issues that are often undetectable using other evaluation methods such as surveys. This makes usability testing relevant for applications on sub-district-level government websites with diverse user characteristics.

2.3 Usability of Local Government Websites

Other studies have highlighted the importance of usability on local government websites, including those for villages and subdistricts. A usability analysis of the Musi Village Website shows that information structure and menu clarity greatly affect users' success in accessing digital services [4]. Furthermore, usability evaluations of public service websites can provide improvement recommendations oriented towards the needs of end users [4], [9].

In addition to research highlighting aspects of information structure and user perception, several other empirical studies have shown that usability evaluations of local government websites provide new insights into the real experiences of citizens when they interact with digital services. For example, usability evaluations of e-government websites in the sub-district office environment show that the level of community involvement in utilizing online services is still low due to obstacles such as a lack of digital literacy and the community's preference for offline services [10]. This finding also emphasizes that usability evaluations must consider the diverse conditions of users at the local level so that the evaluation results can form the basis for inclusive and contextual recommendations for improving the development of sub-district and village government websites in the future.

Based on this study, it can be concluded that the usability evaluation of sub-district government websites still has room for improvement. Many studies focus on the context of cities and regencies or emphasize user perceptions, whereas task-based evaluations at the sub-district level are relatively limited. Therefore, this study

attempts to fill this gap by analyzing the usability of the Tinanggea Sub-district Website using the usability testing method to obtain a real picture of the user experience and relevant recommendations for improvement.

2.4 ISO 9241-11

ISO 9241-11 defines usability as the extent to which a system can be used by specific users to achieve specific goals in a specified context of use [11]. It considers effectiveness, efficiency, and satisfaction as key aspects of usability. Based on this standard, usability consists of three main components: effectiveness, efficiency, and user satisfaction.

Effectiveness refers to the error rate of a system; a good system is one that, when used, results in few errors made by users [12].

Efficiency refers to how quickly and accurately users can complete tasks using the system after learning its design. In this context, efficiency measures the resources expended in relation to the accuracy and completeness with which users achieve goals [12], [13].

Satisfaction is the level of satisfaction users feel when using the system provided to them for testing. Usually, this section will also present the possibility of a user using the system in the future.

These three components serve as a conceptual framework for interpreting the results of usability testing on the Tinanggea Subdistrict Website, enabling systematic analysis of the research results to be carried out systematically and in accordance with international usability standards.

2.5 System Usability Scale (SUS)

The System Usability Scale (SUS) is a usability evaluation instrument developed by John Brooke in 1996 as a simple questionnaire containing ten statements with a five-point Likert scale to measure users' subjective perceptions of the overall usefulness of the system [14]. The SUS is designed as a quick and practical evaluation tool, so it can be used efficiently in conditions of limited time and resources, and is neutral to the type of technology being evaluated. In its development, Brooke selected ten items with high correlations from a number of initial statements to produce alternating positive and negative response patterns to minimize response bias. The SUS primarily reflects the satisfaction aspect of usability, as defined in ISO 9241-11, and has been widely used in various interactive system evaluation contexts. Further research shows that although the SUS can provide a representative picture of usability with a relatively small number of respondents, increasing the sample size can improve the reliability of the findings and broaden the scope of usability issues identified [15].

3 RESEARCH METHODS

3.1 Research Type and Approach

This study used a descriptive method with a usability testing approach. The descriptive method was chosen because this research aims to describe and analyze the condition of the website as it is, without making significant developments or modifications to the system. The focus of the research is on how users interact with the website and the extent to which the website is easy to use in supporting users' information needs.

The usability testing approach was used because this method is one of the main methods in the field of human-computer interaction to evaluate interactive systems based on direct user experience. Through usability testing, researchers can observe user behavior, difficulties encountered, and interaction barriers that arise when users interact with a website. In addition to direct observation, this study also used a quantitative instrument in the form of the System Usability Scale (SUS) to obtain a numerical picture of the website's usability level and reinforce the evaluation results objectively.

3.2 Research Object

The research object in this study is the previously developed Tinanggea District website. The website functions as a medium for providing information containing various content, such as regional profiles, service information, news, and other supporting data for the project.

In the context of this study, the website is treated as a fully developed system that is ready for use by users. Therefore, this study does not discuss the design process or technical implementation of the website but focuses its analysis on the usability and ease of user interaction with the website interface based on the principles of human-computer interaction.

3.3 Research Subject

The research subjects were users of the website of the Tinanggea District, selected using purposive sampling. Eight respondents were involved in the study.

The number of respondents in this study refers to usability testing literature, which states that there is no absolute number of respondents; rather, it is adjusted to the objectives and context of the study. Previous studies have shown that using more than five respondents can increase the stability and coverage of usability findings, especially in systems used by individuals with diverse characteristics [16]. This is in line with a recent study which shows that in formative usability evaluations, a small number of respondents (6 to 9 people) is still effective and reliable for identifying the most critical usability issues on digital platforms [17].

In addition, another study explains that a range of five to ten respondents is commonly used in usability testing to obtain representative findings without producing excessively repetitive data [15]. Therefore, this study involved eight respondents, which was considered appropriate to achieve the objectives of descriptive evaluative usability evaluation.

The characteristics of the respondents in this study included the following:

1. Users who have accessed or are likely to access the Tinanggea District website.
2. Aged between 18 and 40 years old.
3. Basic skills in using digital devices and the internet.

3.4 Data Sources

The data sources used in this study consist of two types: primary and secondary data. Primary data were obtained from direct observation of user interactions when using the Tinanggea Subdistrict website. This data includes how users navigate the website, usage errors that occur, and difficulties experienced by users while interacting with the system.

Secondary data were obtained from the Tinanggea District website database. This database is used as a source of information displayed on the website. In this study, secondary data were not analyzed statistically but were used to create a realistic context for website usage so that usability evaluation could be carried out optimally.

3.5 Data Collection Techniques

The techniques used in data collection are divided into two categories, as follows.

3.5.1 Task-Based Usability Testing

At this stage, respondents will be asked to complete several scenario-based tasks. This is done to identify and record the general activities of website users. During this process, researchers observe the website, including the navigation flow, usage errors, and confusion experienced by users while using it.

3.5.2 System Usability Scale (SUS) Questionnaire

After completing all the given scenario tasks, respondents were asked to fill out a System Usability Scale (SUS) questionnaire consisting of 10 questions on a 1-5 Likert scale. This was done to obtain quantitative data on the website's usability to support the qualitative observation results. Details of the questions included in the questionnaire can be seen in Table 1 below.

Table 1. SUS Questionnaire

No	Statement
1	I think I will use this website often.
2	I find this website too complicated to use.
3	I find this website easy to use.
4	I need help from someone else or a technician to be able to use this website.
5	I feel that the various functions on this website are well integrated.
6	I feel that there are many inconsistencies on this website.
7	I feel that most people will quickly learn how to use this website.
8	I find this website very complicated to use.
9	I feel confident when using this website.
10	I need to learn a lot before I can use this website.

3.6 Task Scenario

A task scenario is a stage in the design of tasks related to a product or research being conducted [18]. The task scenarios presented are based on the general needs of users when accessing information on the Tinanggea Subdistrict website. This aims to make it easier for researchers to evaluate the ease of navigation on the website, the clarity of the information structure, and the ease of searching for information. The task scenarios in this study included four tasks that can be presented through Table 2 below.

Table 2. Task Scenario

Code	Task Scenario	Goal
T1	Go to the website and find detailed information about the profile or history of Tinanggea District.	Respondents successfully found and understood regional profile information.
T2	Search for information about the geographical location, boundaries, or map of Tinanggea District.	Respondents can accurately identify geographical information about the region.
T3	Find information about the potential of the region (such as natural resources, tourism, or MSMEs) in Tinanggea District.	Respondents can identify the potential strengths of the region.
T4	Find the official contact information, office address, or complete identity of the Tinanggea Subdistrict administrator.	Respondents successfully found contact details or agency identities for communication purposes

3.7 Data Analysis Techniques

The data analysis techniques used in this study were descriptive, qualitative, and quantitative. Quantitative data were obtained from the SUS questionnaire, specifically the final usability score of each respondent, which was then averaged to obtain an overview of the usability of the website. The quantitative analysis results supported the qualitative findings.

According to previous study, the usability test results are closely related to the concept of usability in ISO 9241-11, particularly the three concepts of effectiveness, efficiency, and satisfaction in the use of public service websites [19].

3.8 Research Stages

The research stages conducted in this study included the following:

1. **Identification of Usability Problems on the Website**
This stage aimed to identify initial problems related to the usability of the Tinanggea District website. The identification was carried out through an initial review of the appearance, navigation structure, and presentation of the information on the website. The results of this stage were used as a basis for determining the focus of the usability evaluation to be conducted in the next stage.
2. **Task Scenario Development**
In this stage, the researcher developed task scenarios that represented the general activities of users when accessing the website. The task scenarios were designed based on the needs of users in obtaining public information so that they could describe the actual conditions of website usage. The development of task scenarios aims to ensure that the usability evaluation is conducted in a focused manner and is relevant to the context of website usage.
3. **Task-Based Usability Testing**
This stage is the core of the research, where respondents are asked to complete the task scenarios that were developed. During this process, researchers directly observe user interactions with the website, including the navigation flow, difficulties encountered, and errors that occur. The implementation of usability testing aims to obtain a real picture of the user experience when using a website.
4. **Collection of Observation Data and SUS Questionnaires**
Data collection was carried out in two ways, namely direct observation and the System Usability Scale (SUS) questionnaire. Observational data were used to record user behavior, interaction barriers, and usability issues that arose during testing. The SUS questionnaire was used to obtain quantitative data in the form of usability scores that describe users' perceptions of the overall ease of use of the website.
5. **Analysis of Usability Test Results**
The data obtained from the observations and SUS questionnaire were descriptively analyzed. The analysis was conducted by grouping the findings based on usability aspects, such as ease of use, navigation efficiency, and usage errors. The SUS scores were analyzed to provide a numerical overview of the website's usability level and were used to support the qualitative analysis results.
6. **Preparation of Conclusions and Recommendations**
The data obtained from the observations and SUS questionnaires were descriptively analyzed. The analysis was conducted by grouping the findings based on usability aspects, such as ease of use, navigation efficiency, and usage errors. The SUS scores were analyzed to provide a numerical overview of the website's usability level and were used to support the qualitative analysis results.

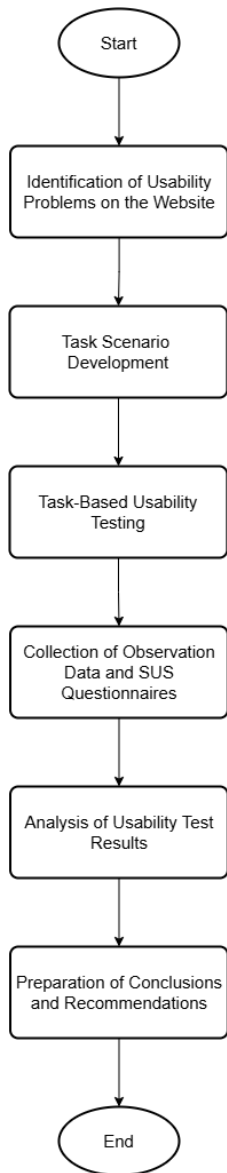


Figure 1. Research Stages

The research stages were arranged systematically and consistently with the characteristics of descriptive evaluative research, without covering the process of system design or redevelopment of the system.

4 RESULTS AND DISCUSSION

The results of the usability testing of the Tinanggea District website were obtained using the System Usability Scale (SUS) instrument. Based on the calculations from eight respondents, the average SUS score was 51.2, indicating that the website's usability level was in the low to marginal category. This score indicates that the website is still functionally usable as a medium for providing public information but does not yet provide an optimal user experience. The distribution

of the System Usability Scale (SUS) scores from all respondents as a basis for assessing the level of website usability is presented in Table 3.

Table 3. System Usability Scale (SUS) Calculation Results

Respondents	SUS Scores
R1	52.5
R2	45.0
R3	47.5
R4	57.5
R5	55.0
R6	45.0
R7	52.5
R8	55.0
Average	51.2

The SUS results were further analyzed with reference to the concept of usability in ISO 9241-11, which covers the aspects of effectiveness, efficiency, and satisfaction in the context of using public service websites. In terms of effectiveness, most respondents were able to complete task scenarios related to basic information searches, such as sub-district profiles and regional potential. However, some users still needed time to adapt during the initial stages of interaction to understand the information presentation. This condition shows that the system's effectiveness has been achieved, but there is still room for improvement to accelerate the achievement of the user goals.

The homepage of the Tinanggea Subdistrict website, which contains regional identity and the main navigation menu, is shown in Figure 2. The basic information presented directly on the homepage helps users understand the purpose of the website without the need for lengthy exploration. The consistency of the navigation menu on each page also supports ease of use when moving between the pages. In terms of usability, this condition shows that the website has fulfilled the aspect of learnability because the usage pattern can be learned by users in a relatively short time.

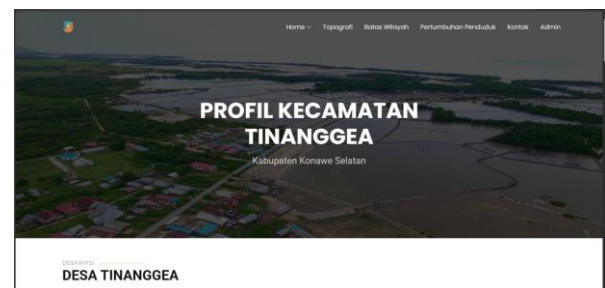


Figure 2. Tinanggea Subdistrict Website Home Page Display

In presenting information on the potential of leading villages, the website utilizes visual elements in the form of images and village tab navigation, as shown in Figure 3. This visual approach helps users obtain a quick and intuitive overview of the region's condition. However, the limited textual explanation means that the information presented tends to be visually descriptive and does not fully support the need for more in-depth information on the topic. This shows that it has achieved effectiveness in conveying information, but the completeness and depth of the content still need to be improved to optimize the quality of public information services.



Figure 3. Page on the Potential of Leading Villages with Village Tab Navigation

In addition to functioning as a medium for providing public information, the Tinanggea Subdistrict website is equipped with an Admin Dashboard feature for user data management, as shown in Figure 4. The existence of this feature shows that the website is not only static but also has operational functions that support system management and maintenance. Based on the observation results, the system implements an error prevention mechanism through input data validation and clear error messages when errors occur during data entry. This mechanism helps users understand the errors that occur and prevents repeated errors during data management.

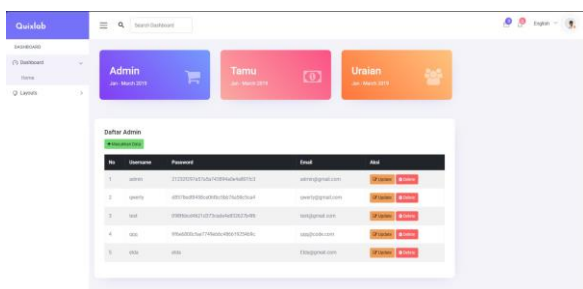


Figure 4. Tinanggea Subdistrict Website Admin Dashboard Display

An example of the application of an error prevention mechanism in the form of input data validation is shown in Figure 5, which shows that the system provides immediate feedback when mandatory

data are not filled in by the user. The existence of this mechanism contributes to increasing the effectiveness and efficiency of system usage because errors can be prevented before the data storage process is carried out. With clear validation and feedback, user interactions with the system become more focused and controlled.

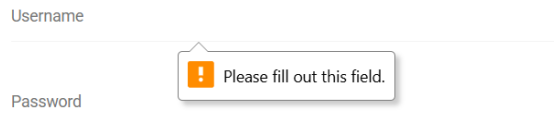


Figure 5. Example of Input Data Validation on the Admin Dashboard

Although error prevention aspects have been well implemented, the evaluation results show that the Admin Dashboard still has limitations in terms of interaction. The system does not yet provide features or space that allow administrators to respond to messages, questions, or feedback from website users. The absence of this two-way communication feature has the potential to limit the role of the website as a responsive and interactive public service medium. In addition, several inconsistencies were found in the presentation of the interface, such as differences in menu terms and component layouts on several pages, which can affect the consistency of the user's experience.

Overall, the results and discussion show that the Tinanggea Subdistrict website has fulfilled its basic function as a medium for providing public information and has implemented several usability principles, particularly in terms of ease of navigation and error prevention. However, based on a usability analysis referring to ISO 9241-11, there are still aspects that need to be improved, especially in terms of interaction efficiency, interface consistency, and communication support between administrators and users. Improvements in these aspects not only affect ease of use but also have direct implications for the quality of public services and user satisfaction. Therefore, the results of this study can be used as a basis for developing a more responsive, consistent, and user-oriented website for the Tinanggea Subdistrict

5 CONCLUSION

Based on the results of research conducted using descriptive methods with a usability testing approach, the conclusion that can be drawn is that the Tinanggea Subdistrict website has fulfilled its basic function of providing public information. This is evidenced by the ability of most respondents to complete task scenarios related to searching for basic information, such as subdistrict profiles, regional information, and regional potential.

Usability testing using the System Usability Scale (SUS) resulted in an average score of 51.2. This score falls into the low-to-marginal category, indicating that the website is still functionally usable but does not yet provide an optimal user experience. This finding is reinforced by observations showing that users need to adapt to understand the navigation structure and information presentation.

When reviewed based on the concept of usability in ISO 9241-11, the effectiveness aspect of the Tinanggea Subdistrict website has been achieved because users are able to complete their main usage objectives successfully. However, the efficiency and satisfaction aspects still need to be improved, especially in terms of interface consistency, navigation efficiency, and the completeness and depth of the information presented. In addition, the limited two-way communication features between users and administrators are one of the factors that have the potential to reduce the quality of interaction and user satisfaction.

6 SUGGESTION AND RECOMMENDATION

Overall, the results of this study show that the Tinanggea Subdistrict website has implemented several usability principles, particularly in terms of ease of navigation and error prevention. However, improvements are still needed in terms of interaction efficiency, interface design consistency, and more interactive service support. This improvement to the website can function more optimally as a responsive public information service medium that is oriented towards user needs.

REFERENCES

- [1] Guido A. Ama Duli, Hendrik Toda, Delila A. Nahak Seran, and Belandina Liliana Long, "Efektivitas Penerapan E-Government dalam Mendukung Transparansi dan Keterbukaan Informasi Publik," *Jurnal Ilmiah Teknik Informatika dan Komunikasi*, vol. 5, no. 2, pp. 601–617, Jun. 2025, doi: 10.55606/jutik.v5i2.1230.
- [2] R. H. Adirasyid, H. Muslimah Az-Zahra, and N. Y. Setiawan, "Evaluasi Usability Situs Web Resmi Pemerintah Kabupaten Sidoarjo Menggunakan Metode Usability Testing dan Evaluasi Heuristic," *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 3, no. 9, pp. 8804–8813, 2019, Accessed: Jan. 13, 2026. [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/6268>
- [3] A. F. Aqil, "Evaluasi User Interface pada Website Pemerintah Kabupaten Asahan," 2024. Accessed: Jan. 13, 2026. [Online]. Available: <http://eprints.ipdn.ac.id/id/eprint/19481>
- [4] A. H. Muhammad, I. K. A. Mogi, and G. A. V. M. Giri, "Analisis Usability Testing Pada Website Desa Musi," *Jurnal Pengabdian Informatika (JUPITA)*, vol. 1, no. 2, pp. 447–454, 2023, Accessed: Feb. 09, 2026. [Online]. Available: <https://ejournal1.unud.ac.id/index.php/jupita/article/view/187>
- [5] K. C. Pangemanan and M. R. Fahlevvi, "Pengaruh Evaluasi Kebergunaan Website Resmi Pemerintah Kota Tomohon (tomohon.go.id): Pendekatan Usability Testing untuk Meningkatkan Pelayanan Publik," *Jurnal Informatika dan Teknik Elektro Terapan*, vol. 13, no. 3, pp. 2011–2020, 2025, doi: 10.23960/jitet.v13i3.6658.
- [6] S. Hijriah and D. Irawan, "Analisis Website E-Government Kecamatan Menggunakan Metode Usability Testing," *ZONasi: Jurnal Sistem Informasi*, vol. 5, no. 3, pp. 419–430, Sep. 2023, doi: 10.31849/zn.v5i3.15798.
- [7] S. Sajida, L. T. Husna, K. W. Rahayu, and I. A. Suryawati, "Evaluating Public Website Performance: Content Analyses on Malang City Government Website," *Journal of Governance*, vol. 8, no. 2, pp. 263–278, Jun. 2023, doi: 10.31506/jog.v8i2.19248.
- [8] I. G. S. Aryandana, L. A. Susanti, P. E. Suardana, and P. V. Nugraha, "Pengujian Kualitas Website Dinas Kependudukan dan Pencatatan Sipil (DUKCAPIL) Kota Denpasar Bali Menggunakan Metode System Usability Scale (SUS)," *Jurnal Teknologi Informasi dan Komputer*, vol. 11, no. 1, pp. 14–25, Apr. 2025, doi: 10.36002/jutik.v11i1.3747.
- [9] M. L. Nuriman and N. Mayesti, "Evaluasi Ketergunaan Website Perpustakaan Universitas Indonesia Menggunakan System Usability Scale," *BACA: Jurnal Dokumentasi Dan Informasi*, vol. 42, no. 2, pp. 253–269, 2020, Accessed: Jan. 12, 2026. [Online]. Available: <https://ejournal.brin.go.id/baca/article/view/7540>
- [10] S. Wahyuni, D. Febriyanti, and N. Kencana, "Evaluasi Penggunaan (Usability) Website E-Pemerintahan di Kantor Kelurahan Demang Lebar Daun Kota Palembang," *WEDANA: Jurnal Kajian Pemerintahan, Politik dan Birokrasi*, vol. 9, no. 1, pp. 31–41, Sep. 2023, doi: 10.25299/wedana.v9i1.12388.
- [11] F. S. Putra, H. Muslimah Az-Zahra, and L. Fanani, "Evaluasi Usability Aplikasi Perangkat Bergerak AlgoritmaKopi Menggunakan Metode Usability Testing," *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 3,

- no. 8, pp. 8130–8139, 2019, Accessed: Feb. 04, 2026. [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/6036>
- [12] M. S. Tuloli, R. Patalangi, and R. Takdir, “Pengukuran Tingkat Usability Sistem Aplikasi e-Rapor Menggunakan Metode Usability Testing dan SUS,” *Jambura Journal of Informatics*, vol. 4, no. 1, pp. 13–26, Apr. 2022, doi: 10.37905/jji.v4i1.13411.
- [13] J. Brooke, “SUS: A ‘Quick and Dirty’ Usability Scale,” in *Usability Evaluation in Industry*, P. W. Jordan, B. Thomas, B. A. Weerdmeester, and I. L. McClelland, Eds., London, United Kingdom: Taylor & Francis, 1996, pp. 189–194. Accessed: Feb. 03, 2026. [Online]. Available: https://www.researchgate.net/publication/228593520_SUS_A_quick_and_dirty_usability_scale
- [14] International Organization for Standardization, “ISO 9241-11:2018 Ergonomics of human-system interaction — Part 11: Usability: Definitions and concepts,” Geneva, 2018. Accessed: Feb. 03, 2026. [Online]. Available: <https://www.iso.org/standard/63500.html>
- [15] A. Cazañas, A. de San Miguel, and E. Parra, “Estimating Sample Size for Usability Testing,” *Enfoque UTE*, vol. 8, no. 1, pp. 172–185, Feb. 2017, doi: 10.29019/enfoqueute.v8n1.126.
- [16] L. Faulkner, “Beyond the Five-User Assumption: Benefits of Increased Sample Sizes in Usability Testing,” *Behavior Research Methods, Instruments, & Computers*, vol. 35, no. 3, pp. 379–383, Aug. 2003, doi: 10.3758/BF03195514.
- [17] P. Vlachogianni and N. Tselios, “Investigating the impact of personality traits on perceived usability evaluation of e-learning platforms,” *Interactive Technology and Smart Education*, vol. 19, no. 2, pp. 202–221, May 2022, doi: 10.1108/ITSE-02-2021-0024.
- [18] H. Farid, D. Yusup, and Carudin, “Analisis Usability pada Aplikasi Momby Spa Menggunakan Metode Usability Testing,” *Jurnal Ilmiah Wahana Pendidikan*, vol. 2022, no. 14, pp. 155–163, 2022, Accessed: Feb. 04, 2026. [Online]. Available: <https://jurnal.peneliti.net/index.php/JIWP/article/view/2082>
- [19] M. L. Nurhakim, B. T. Hanggara, I. Sartika, and E. Maghfiroh, “Analisis Usability dan Pengalaman Pengguna Website Sman 5 Bogor Versi Mobile Menggunakan Mecue Questionnaire dan System Usability Scale (SUS),” *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 7, no. 2, pp. 773–780, 2023, Accessed: Feb. 04, 2026. [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/12310>