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Usability Analysis of Anggavision Website as an Independent Learning Media for Videography Community

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Abstract

This study aims to measure and analyze the usability level of the Anggavision Website as an independent learning media for members of a videography community. The novelty of this research lies in evaluating the system usability of an independent learning platform specifically designed to support an extracurricular videography community, shifting the focus from measuring pedagogical learning outcomes in standard classroom settings to assessing UI/UX feasibility for novice students. A descriptive quantitative approach was employed. Initially, all 46 active members of the SMP Baitul Muttaqin Videography Community were involved through saturated sampling. To maintain data integrity and mitigate response bias, a strict data screening process was applied to eliminate 8 anomalous entries such as central tendency bias and straight lining resulting in 38 valid respondents. Data were collected using the standardized System Usability Scale (SUS) questionnaire, which had passed validation by media and material experts, and analyzed using the standard SUS calculation algorithm. The results showed that the Anggavision Website obtained an overall average SUS score of 73.35. Practically, this score signifies that the website possesses a solid ergonomic quality (Grade B) and highly intuitive navigation (Good), which successfully minimizes the cognitive load for beginner users. In conclusion, the Anggavision Website is proven to be highly usable, user friendly, and acceptable as a digital repository platform for extracurricular videography communities, without claiming pedagogical learning effectiveness.

Keywords: Usability, System Usability Scale, Independent Learning Media, Website, Community Videography.

1. INTRODUCTION

The rapid development of the digital creative industry requires creators to have a comprehensive mastery of videography techniques (Bates, 2019). To accommodate this interest, many individuals join videography communities, which offer collaborative and inclusive learning environments (Haqqu et al., 2022). However, knowledge transfer within these communities is often sporadic, with materials scattered across chat groups without a consistent curriculum, making it difficult for novice members to understand the technical concepts.

To address this methodological obstacle, a website based independent learning media prototype named "Anggavision" was developed to present videography materials centrally. Websites offer high cross platform accessibility, allowing users to learn independently without software installation (Salsabila & Aslam, 2022). However, a critical synthesis of previous studies reveals a distinct research gap. Previous research on videography learning media, such as those conducted by (Firdaus et al., 2024) and (Vidiasari, 2023), primarily focused on evaluating pedagogical learning outcomes and effectiveness within formal educational environments like vocational high schools. Furthermore, literature focusing on usability evaluation using the System Usability Scale (SUS) generally examines artificial intelligence systems or broad e-learning platforms (Mulia et al., 2023) and (Vlachogianni & Tselios, 2022) The novelty of this research lies in

evaluating a platform specifically engineered as a centralized digital repository for an extracurricular videography community, shifting the focus from measuring pedagogical learning outcomes in formal classrooms to assessing UI/UX feasibility for novice students.

Providing a website laden with educational materials does not guarantee learning success. According to the (International Organization for Standardization, 2018), the quality of a system heavily depends on its usability. If a learning website features a confusing user interface, it will increase the users' cognitive overload and decrease their learning motivation (Preece et al., 2019). Therefore, conducting usability testing is a crucial step before the Anggavision Website is widely implemented. To evaluate this system, the study employs the System Usability Scale (SUS). Compared to other usability evaluation approaches such as complex heuristic evaluations or resource heavy laboratory testing SUS provides a distinct empirical advantage: it produces highly stable, reliable, and valid evaluation data even when tested on a relatively small sample size, which is ideal for community level testing (Lewis, 2018) and (Setemen et al., 2019) This provides a strong scientific justification for choosing SUS to objectively measure the system's usability level and ensure an ergonomic independent learning facility for the community.

2. RESEARCH METHODOLOGY

This research was designed using a descriptive quantitative approach to accurately measure and summarize the usability level of the Anggavision Website without intending to test correlational hypotheses (Creswell, 2009) and (Rachman et al., 2024). The website development procedure followed the System Development Life Cycle (SDLC) using a systematic Waterfall approach (Sommerville, 2016), which included requirement analysis, system design using the Google Sites ecosystem, implementation, and testing. Prior to field implementation, the validation process was rigorously conducted through expert judgment; the system's UI/UX functionality was evaluated by a Media Expert, while the pedagogical accuracy was validated by two Material Experts. The overall research and development flow is illustrated in Figure 1.

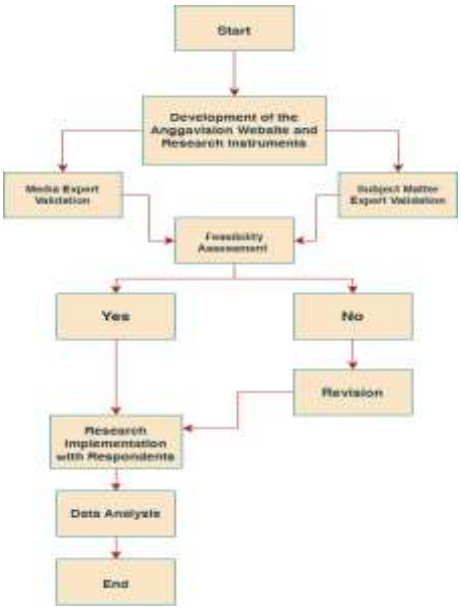

Figure 1. Media Development Flowchart

The target population comprised 46 active members of the extracurricular Videography Community at SMP Baitul Muttaqin. Because usability testing requires representative feedback, a saturated sampling (census) technique was employed

(Taherdoost, 2016), initially involving all 46 members. To strengthen the methodological rigor and ensure data validity, a strict data screening procedure was implemented. The data screening criteria aimed to eliminate response biases; thus, out of 46 raw entries, 8 data units were eliminated due to filling anomalies such as central tendency bias, contradictory answers between positive and negative items, and straight lining. This screening process successfully established 38 clean, statistically valid sample data units for final analysis.

The primary data collection instrument was the online based System Usability Scale (SUS) questionnaire, consisting of 10 alternating statements (five positive and five negative) measured on a 5 point Likert scale, as presented in Table 1. Regarding instrument reliability, SUS is psychometrically proven to be highly robust; it generally yields a Cronbach's Alpha exceeding 0.85, guaranteeing stable and valid evaluation data even when tested on relatively small sample sizes (Lewis, 2018) and (Setemen et al., 2019).

Table 1
System Usability Scale (SUS) Questionnaire Instrument

No.	Statement	Statement Tone
1	I think that I would like to use this system frequently.	Positive (+)
2	I found the system unnecessarily complex.	Negative (-)
3	I thought the system was easy to use.	Positive (+)
4	I think that I would need the support of a technical person to be able to use this system.	Negative (-)
5	I found the various functions in this system were well integrated.	Positive (+)
6	I thought there was too much inconsistency in this system.	Negative (-)
7	I would imagine that most people would learn to use this system very quickly.	Positive (+)
8	I found the system very cumbersome to use.	Negative (-)
9	I felt very confident using the system.	Positive (+)
10	I needed to learn a lot of things before I could get going with this system.	Negative (-)

Following the independent exploration of the website, respondents completed the SUS questionnaire. Data analysis strictly adhered to the standard SUS calculation algorithm: converting positive and negative item scores, summing them, and multiplying by a constant of 2.5 to generate a final score ranging from 0 to 100. To make the research transparent, systematic, and easily replicable, the raw average score requires a standardized interpretation rationale. Therefore, the final score was mapped using the comprehensive multimetric interpretation framework developed by (Sauro, 2018). This framework robustly categorizes the score into a Grade Scale, Adjective Rating, Acceptability Range, and Net Promoter Score (NPS), providing a highly justified global industry context rather than leaving the score as a meaningless raw number.

3. RESULT

Before the Anggavision website was implemented for field testing, it underwent a rigorous expert judgment phase to evaluate its technical UI/UX functionality and pedagogical accuracy. This phase involved one Media Expert and two Material Experts.

The Media Expert evaluated the system's visual design, navigation, and technical stability. The evaluation resulted in 33 "Strongly Agree" and 11 "Agree" responses across the assessed indicators, with zero neutral or negative responses, validating a highly

reliable system architecture.

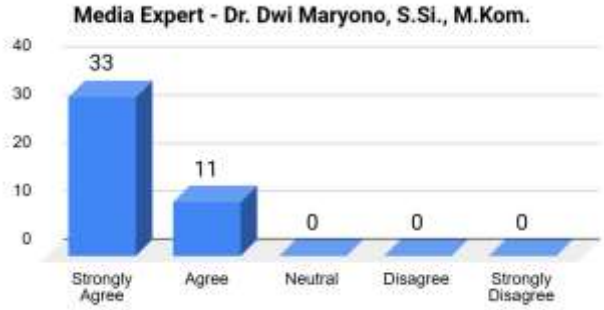

Figure 2. Distribution of Expert Feasibility Test Assessment

Furthermore, the substantive content of the videography materials was validated by two experts. Material Expert 1 provided 24 "Strongly Agree" and 20 "Agree" responses, while Material Expert 2 provided 42 "Strongly Agree" and 2 "Agree" responses. Neither expert provided any negative assessments regarding the conceptual accuracy of the curriculum.

Figure 3. Distribution of Expert Feasibility Test Assessment

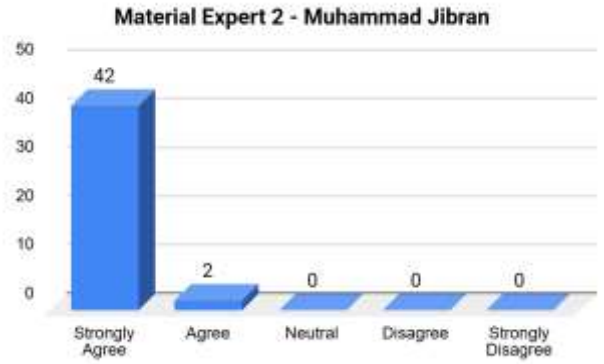

Figure 4. Distribution of Expert Feasibility Test Assessment

Revisions Based on Expert Judgment. While the system was declared quantitatively feasible, qualitative feedback from Material Expert 1 highlighted a crucial need for language adjustment. Consequently, a major revision was executed on the website's language and communication aspects, foreign technical terms (e.g., Aperture, Shutter Speed, Depth of Field, Framing) were simplified and replaced with descriptive analogies more suited to the cognitive level of junior high school students. Following this revision, the system was finalized for end user testing.

Usability testing was conducted with the active members of the SMP Baitul Muttaqin Videography Community. From an initial pool of 46 respondents, the data screening process successfully identified and eliminated 8 anomalous datasets (e.g., central tendency bias and straight lining responses). The final empirical data utilized for quantitative analysis consisted of 38 valid novice respondents. The comprehensive demographic profile of these participating respondents is presented in Table 2.

Table 2
Respondent Demographic Characteristics

Demographic Parameter	Category	Percentage (%)
Gender	Female Male	68.4% (26 Students) 31.6% (12 Students)
Cognitive Age Range	13 - 15 Years Old (Early Adolescence)	100% (38 Students)
Videography Literacy Experience	Basic Level / Novice	100% (38 Students)

The ordinal data obtained from the 10 item SUS questionnaire were mathematically transformed using the standard SUS calculation algorithm. The descriptive statistical analysis revealed that the total accumulated SUS score from all 38 valid respondents was 2,787.5. By dividing this total accumulation by the sample size, the Anggavision Website obtained a final overall average SUS score (Grand Mean) of 73.35.

4. DISCUSSION

To deeply understand the empirical usability findings of the Anggavision Website, a descriptive analysis was conducted on the 10 specific SUS questionnaire items. Table 3 details the percentage of support for each statement, mapping the specific navigational strengths and potential areas for improvement of the interface.

Table 3
Analysis of Perception and Majority Tendency per SUS Item

Item	Statement Tone	Respondent Majority Tendency	Result Interpretation
Q1	Positive (+)	65.8% (Agree/Strongly Agree)	Students have a strong interest in using the website continuously.
Q2	Negative (-)	63.1% (Disagree/Strongly Disagree)	The system is proven uncomplicated; the Google Sites layout is very neat.
Q3	Positive (+)	71.0% (Agree/Strongly Agree)	The system is very easy to use due to the simplification of technical language.
Q4	Negative (-)	57.9% (Disagree/Strongly Disagree)	Students do not need technician assistance; independent learning is achieved.
Q5	Positive (+)	84.2% (Agree/Strongly Agree)	Interactive features (simulator, carousel) integrate smoothly without errors.
Q6	Negative (-)	71.0% (Disagree/Strongly Disagree)	UI design is highly consistent (uniform colors, fonts, navigation buttons).
Q7	Positive (+)	65.8% (Agree/Strongly Agree)	The system is highly intuitive; can be learned quickly by beginners (high Learnability).

Q8	Negative (-)	81.6% (Disagree/Strongly Disagree)	The system is considered very practical because the material is broken down using the chunking method.
Q9	Positive (+)	60.5% (Agree/Strongly Agree)	Students feel confident when surfing and exploring the modules.
Q10	Negative (-)	Divided (34% Agree, 34% Disagree)	A small number of students need initial adaptation time using e-learning.

Based on the per item analysis in Table 3, the platform demonstrated strong practical usability. The massive rejection (81.6%) of statement Q8 indicates that the website's structure is highly practical, avoiding navigational complexity. Furthermore, 84.2% of respondents agreed with Q5, verifying that the integrated features within the Google Sites ecosystem such as embedded tutorial videos, interactive image carousels, and external exposure simulator links functioned smoothly without technical errors. However, the divided response on Q10 (34% agree and 34% disagree) indicates a minor usability issue: a portion of absolute novice users still required initial adaptation time to navigate the e-learning ecosystem. This implies that future website development should integrate a short onboarding tutorial video on the homepage to guide new community members.

Beyond the per item analysis, the overall absolute SUS score of 73.35 must be interpreted through global industry standard frameworks to determine its practical significance. The calibration parameters and the Anggavision Website's score position are visualized in Figure 2.

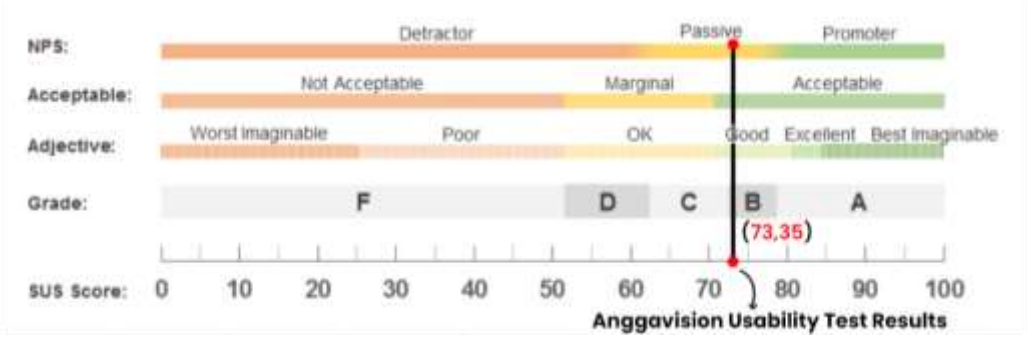

Figure 5. SUS Multimetric Interpretation Mapping (Sauro, 2018)

Referring to Figure 2, the Anggavision Website firmly occupies the Grade B territory and the "Good" Adjective predicate. This achievement serves as empirical justification that the hierarchical menu structure, visual composition, and button consistency possess solid ergonomic quality and intuitive navigation for novice adolescent learners. Furthermore, the system successfully penetrates the "Acceptable" zone, proving that the Anggavision Website is legitimately feasible to be implemented as the main infrastructure facility within the extracurricular videography community without requiring massive architectural overhaul. In the Net Promoter Score (NPS) matrix, the "Passive" category indicates that respondents experienced functional satisfaction and operational acceptance without significant complaints, utilizing the platform securely, even though they may not actively promote it outside their community.

The findings of this usability evaluation offer a new perspective when compared to relevant previous studies. A study by (Salsabila & Aslam, 2022) proved that Google Sites could achieve highly feasible validation scores for elementary science subjects in formal schools. The present study corroborates this by demonstrating that Google Sites is equally

viable and highly usable for non formal, multimedia heavy extracurricular subjects like videography, maintaining stability even when loaded with high resolution visual assets.

Furthermore, previous videography learning media research, such as the ARPIX STUDIO application (Firdaus et al., 2024) and project based video editing learning (Vidiasari, 2023), emphasized evaluating pedagogical learning outcomes directly in formal vocational high school environments. This research bridges a critical methodological gap; before claiming educational effectiveness, this study first confirms the platform's UI/UX feasibility (usability) using the SUS instrument (Lewis, 2018), specifically tailored for a non formal extracurricular community context.

To ensure scientific objectivity, it is essential to acknowledge the limitations of this study. This research strictly measured the perceived usability of the interface based on user experience data (SUS). The study did not directly or clinically measure pedagogical learning effectiveness, actual cognitive load reduction, or specific psychological variables such as gender bias in design. Therefore, while the website is proven to be a highly feasible and usable independent learning repository, future experimental research is highly recommended to explicitly evaluate the direct impact of the Anggavision Website on students' actual videography learning outcomes and skill acquisition.

5. CONCLUSION

This study successfully achieved its primary objective of evaluating the interface feasibility of the Anggavision Website as an independent learning media for an extracurricular videography community. Based on the empirical evaluation using the System Usability Scale (SUS), the platform is proven to be highly usable, intuitive, and ergonomically acceptable for novice users. The research contributes a concrete, centralized digital repository solution that effectively resolves the methodological gap of sporadic and unstructured material distribution typically found in non formal community environments. Practically, the platform's design strategy which integrates simplified instructional language, multimedia chunking, and interactive simulated features succeeds in providing a user friendly interface that facilitates technical videography exploration without causing excessive cognitive friction.

As a specific recommendation for future system development, integrating a brief onboarding tutorial on the homepage is advised to further minimize the initial adaptation time for absolute beginners. Finally, to ensure strict scientific objectivity, it is concluded that while this study confirms the system's UI/UX usability, future experimental research is required to directly measure its pedagogical effectiveness and actual impact on students' learning outcomes.

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