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Exploring a web-based interactive writing assessment WISSE: User experiences

Putu Dian Danayanti Degeng, Hamamah Hamamah*, Ive Emaliana, Yulia Hapsari, Alifa Camilia Fadillah

Universitas Brawijaya, Indonesia

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ABSTRACT

This paper aims to investigate the user experiences of Web-based Integrated Writing Assessment (WISSE) developed to help lecturers and learners provide and navigate feedback for academic writing in English. User experience is one of the crucial elements for product success and reception in Research and Development (R & D). Aspects of user experience highlighted in this study are web features, ease of use, and design. The participants involved were two lecturers and twenty-eight learners from the English Language Education and the English Literature study program at one of the prominent universities in Malang. At first, both learners and lecturers created a temporary account on the web prototype, and they were assigned two different roles: learners wrote and submitted a short argumentative essay on the application, and lecturers provided feedback on the essays through a personal comment box. At the end of the trial, both groups revealed their experience and inputs on the features, operation accessibility, and web design through questionnaires. To a large extent, both lecturers and learners were satisfied with the goal of the application to provide easy accessibility to assessing academic text. However, both groups agreed that more distinctive features should be added, along with a manual book and language switch feature, as it is attainable that the future users of WISSE will not be limited to EFL learners. The user trial results illustrate that while

*_Corresponding author_:

Hamamah
Universitas Brawijaya
Jl. Veteran No.10-11, Ketawanggede, Kec. Lowokwaru, Kota Malang, Jawa Timur 65145, Indonesia
Email: hamamah@ub.ac.id

WISSE needs further development and revision, it exhibits proper performance and is prepared for large-scale use.

Keywords: *Academic writing assessment; AI-integrated website; EFL learners; User experience*

1. Introduction

In Indonesia, improving the quality and quantity of scientific writing published in internationally reputable journals is encouraged by the issuance of the Regulation of the Minister of Research, Technology and Higher Education No. 50 of 2018 for the sake of developing science and technology in Indonesia as well as increasing the nation's competitiveness globally. Nevertheless, learners still experience difficulties caused by differences in Western scholars' language and writing culture, from grammar, spelling errors, and inaccurate word choices to idea formation and coherence (Hamamah et al., 2020; Hamamah, Emaliana, Degeng, et al., 2023). Recent research investigating the sentiments of Indonesian learners who continue their education abroad on the challenges in writing their research papers in English shows that these difficulties arise from the incapability to build efficacious writing habits that obstruct them from being proficient in delivering their ideas from L1 to L2 (Ningrum et al., 2023).

To bridge these discrepancies, self-corrections and professionals' or experts' assistance become alternatives to help learners produce better manuscripts in English. Many opt for computer-mediated or AI-generated feedback in this digital era to aid their self-evaluation activities. Indeed, the practice has been widely popular for decades (Hyland & Hyland, 2006), as continuous developments of AI integrated into web-based platforms have benefited EFL learners to evaluate their essays for surface errors, such as grammatical and spelling errors (Li, 2023). Research on web-based platforms for giving feedback in academic writing has been extensively conducted to investigate its impact on learners' writing skills (Lam, 2021). However, Gayed et al. (2022) highlight that this effort does not actively contribute to learners' proficiency in English or any target languages, nor enhances their ingrained writing abilities. In an in-depth interview with Indonesian international students, they disclose that feedback from teachers whose expertise correlates with their research is considerably valuable (Ningrum et al., 2023), especially concerning global comprehension where they have to synchronize their ideas coherently into a comprehensive manuscript (Kerr, 2020).

Nevertheless, it is undeniable that teachers, as experts, also experience dilemmas in giving effective feedback for academic manuscripts. Hyland & Hyland (2006) mention several factors that teachers should consider, including but not limited to various feedback practices and strategies, learners' achievements, and learners' views on the feedback given. Contextual factors are also at play, where Goldstein (2004, 2005, in Hyland & Hyland, 2006) proposes several socio-political concerns that can affect teacher self-efficacy, accessible resources, disproportion of class ratio, institutional supports for EFL learners, standardized examinations issued by governments, and institution's learning

outcomes. Whereas it is publicly encouraged—and significantly expected from a teacher—the practice of giving effective feedback is challenging to implement in Indonesia, especially with the disproportionate class size and the available teachers, not to mention the limited teaching and learning hours designed by the institution (Ariyanti & Fitriana, 2017; Hamamah et al., 2023).

In response to these issues, the researchers have steadily designed and developed a web-based writing assessment platform called "WISSE," or "Writing Integrated Assessment" (http://8.219.83.129/) (Degeng et al., 2022), as it is believed that the use of digital writing assistants or tools and teacher or expert feedback if combined and appropriately implemented, cannot only improve learner's manuscript but also help them recognize their weaknesses and address them better in the future. Facilitating teachers in providing structured feedback with a writing-integrated platform can minimize the burdens without diminishing their professional morale as educators, first and foremost. In particular, this study focuses on integrating digital technology in L2 academic writing, where ESL/EFL learners are continuously expected to sharpen their writing skills in English.

Nevertheless, user experiences of using the WISSE are needed to get feedback for the refinement of the platform. Developed based on a writing assessment model that combines the writing process and OBE principles (Hamamah et al., 2020), the WISSE prototype was created (Degeng et al., 2022). Then, a try-out of the prototype was executed by taking into account the feedback from potential users, namely graduate students (Hamamah et al., 2023), academic writing teachers (Hamamah et al., 2023), and academic writing students, teachers, and stakeholders (Hapsari et al., 2023). Next, a feasibility test on the refined prototype was conducted (Hamamah et al., 2023). Once the refined prototype was ready, potential WISSE users were again invited to use the platform and share their experiences. User experience is essential in developing digital products and multimedia (Drygalska, 2021) due to the growing importance of quality of experience in user-centered design (Hewage & Ekmekcioglu, 2020). Thus, this study intends to know the user experience towards WISSE to support academic writing.

2. Literature review

2.1. WISSE overview

Technology integration in the classroom has revolutionized the teaching and learning process and reshaped ways of thinking, learning, and doing (Weng & Chiu, 2023). Mahmud et al. (2022) reported that learning quality can be significantly enhanced using technology advancements as teaching and learning activities can access various digital tools. However, in real-life practice, integrating digital technology such as web-based platforms—which offer many opportunities, e.g., accessibility, scalability, integration, and long-term investment compared to any other tools—is mainstream (Wen & Katt, 2023) yet arduous and challenging (Gayed et al., 2022).

First developed, Hamamah, et. al., (2020) argued that WISSE as an integrated tool was built upon certain principles that support the improvement of academic writing quality: (1) WISSE is designed to be able to integrate both automated grammar and plagiarism checkers to promote independent learning and integrated assessments, (2) WISSE adapts the process-writing stages, i.e., outlining, drafting, peer-reading and editing, conferencing, and final revising to guide learners gradually improve their manuscripts, (3) WISSE facilitates peer feedback where learners can provide feedback to each other and promote learner-centered learning, (4) WISSE accommodates the demand for portfolio documentation, where learners can store their writing progress automatically and document teacher feedback in one container; this way, both teachers and learners can return to previous versions of their manuscript or access older comments without having to worry about losing their progress In the initial stages, WISSE had two different website versions: the first version was created and evaluated by media and language (Degeng et al., 2022). However, due to several technical issues, the project was halted. The second version was created in 2022 by taking into account the needs analysis from WISSE's potential users, namely graduate students (Hamamah et al., 2023), academic writing teachers (Hamamah et al., 2023), and academic writing students, teachers, and stakeholders (Hapsari et al., 2023).

The refined version of WISSE resulted in a new user interface and features that promote a better user experience. Various features accessible to users include task collection and score-generating integrated spelling and grammar checkers, a scoring box, a private discussion box to facilitate one-on-one communication between teacher and learner, and a commentary box for teachers to give feedback. These features were based on Hamamah et al.'s (2023) study, which reported that these applications could not generate scores despite students utilizing grammar, spelling, and similarity checkers. Consequently, they do not provide a viable solution to lecturers' time constraints. Furthermore, these applications are still utilized individually. The resolution to these current issues lies in integrating multiple applications into a single platform that can generate scores. Previous studies about WISSE also reported that graduate students taking their doctorate abroad, undergraduate students taking academic writing classes, teachers of academic writing classes, the Dean, and the Head of the Department of English language program shared similar ideas. First, the grammar and spelling checker is the most helpful and frequently used application because it is user-friendly and labor-saving (Hamamah et al., 2020; Hapsari et al., 2023). Second, integrating human-generated features into the WISSE is crucial for enabling interactions with other users and receiving advice and suggestions to enhance manuscripts. Although online apps help identify minor errors, they are inadequate for enhancing the text's quality. As human intelligence recognizes the significance of feedback and critical thinking abilities, writers can improve the flow of ideas in their compositions by obtaining feedback from teachers, who are experts, as well as from their peers (Hamamah et al., 2020; Hapsari et al., 2023).

In hindsight, what WISSE has developed in this early stage is almost similar to its predecessors, namely Grammarly, Turnitin, Google Docs, Google Classroom, and many others. Concerning a small-scale project for the sake of upscaling the quality of academic writing in an EFL context, WISSE is almost similar to AI KAKU (Gayed et al., 2022), an online-based writing application for Japanese EFL learners. Gayed et al. (2022) found that their AI-based application to measure students' fluency in writing did not show a significant difference compared to a group of participants who did not employ the AI KAKU application. They argued that human assessment of students' writing can give a more holistic understanding of the quality of the student's writing.

Nevertheless, the significance of process-writing stages, as well as teacher guidance and feedback in improving learners' writing skills and, consequently, their manuscripts, has been the fundamental awareness of the development of WISSE. This awareness differentiates WISSE from other online writing tools alike. WISSE, as a one-stop academic writing assistance website, offers benefits for academic writing teachers to efficiently support and track students' development by integrating many online applications and human interactions that operate based on a writing assessment model (Hamamah et al., 2020) to provide feedback and promote critical thinking among students. The researchers also set certain expectations for WISSE to cater to broader use for Indonesian scholars struggling to write for international publications following the National Regulation. Therefore, through this paper, the researchers deem it crucial to gather user experiences from potential users of WISSE—which are university learners and lecturers—as initial data to further develop WISSE into a sophisticated writing assistant for Indonesian EFL learners for the time being (as WISSE itself has yet to be released for public use).

2.2. The importance of user experience

When developing a product, particularly a website for general use, gathering user experience (UX) knowledge is essential to obtain a broader view of the website developed and user acceptance level. Several significant factors that influence user intentions toward a website are its practical use and the various features embedded in it (Chen & Tseng, 2012; van der Heijden, 2003). Features offered by a website can attract user intentions. When their implementation is successful without any necessary bugs, they will determine the user satisfaction (Asikin-Garmager et al., 2022) and whether the website can be trusted (Seckler et al., 2015). Once users find the website meets their needs and expectations—in which users thought it to be practical, accessible, trusted, and able to provide a joyful experience in the operation process—users will willingly use the website and even promote it to others.

The web design or appearance is another factor that can instigate user intention (Al-Qeisi et al., 2014). The web "face," or user interface (UI), really matters in gaining user intention and is intertwined with the features offered to the user. In hindsight, UI is the first impression users will experience when using the website towards its system

result. Designing an engaging user interface will have a beneficial impact on both users and developers. When users find a website efficient yet simple with appealing visual interaction, they will certainly continue using it, which will positively impact the development of the website itself.

As for WISSE as a web-based application to assist academic writing, an exploration of its application is done in this research by focusing on user experiences. However, learning from some feedback acquired during the prototyping process, it is worth noting that integrating artificial intelligence and human intelligence is imperative. This argument is evident in Hamamah et al.'s (2023) study about WISSE, showing that, among others, the participants got confused when they depended on translation tools embedded in the WISSE to look for specific terms in a particular field. In this situation, WISSE's discussion and conference features came to help since these features connect them to their peers or teachers to respond to their difficulties. Another study by Hapsari et al. (2023) reported students' emphasis on the importance of a simplified template or an outline in the pre-writing process. Since WISSE implemented process writing stages in its operation, a template is provided to jot down students' ideas in the pre-writing process. Hence, students, as potential users of the WISSE, pointed out the concern of human feedback to help students organize ideas and create sound arguments. They emphasized that a template, combined with lecturer guidance, would aid in revising ideas before refining the text.

3. Method

In research and development (R & D) using the ADDIE model, there are five phases: analysis, design, development, implementation, and evaluation. The result to be reported in this paper focuses more on the implementation phase, namely the user experiences. The prototype of WISSE has been developed and validated by experts and is feasible for use (Hamamah et al., 2023). Ellington & Aris (2000) asserted that once the product of a research is well developed, it has to be used by the target population for which it has been designed. The participants in this research were lecturers and learners. User trials must be conducted to determine whether the product meets the users' needs.

The trial involved 30 participants consisting of 28 university learners and 2 academic writing lecturers from the English Language Education and the English Literature study programs of a public university in Indonesia. The introduction of WISSE as a developing product to the lecturers was conducted at the beginning of November 2022, where they were given a meticulous description of how the web currently ran, and at the end of the session, they were guided to create a temporary account, open a class, and prepare a mock-up writing assignment for their learners. Within the following week, assisted by the researchers, the WISSE trial with lecturers and learners began. The initial procedures had already corresponded to those of the lecturers beforehand. However, learners also received a thorough explanation of the web as it would provide a different interface if the user identified as a learner. Learners were guided to create a temporary

account to submit their project-based argumentative writing texts. Once the results were collected, the lecturer provided feedback on their writing through the personal comments box contained on the website. Learners discussed the feedback with the members of their respective groups and revised the writing according to the suggestions made by the lecturer. The end of the session was marked with the final submission of the writing project containing the revision by the learners.

Subsequently, a questionnaire was composed to gather feedback and suggestions based on learners' and lecturers' experiences when using WISSE for their writing assignments and feedback practice. The questionnaire was adapted from a study by Rosyada & Sundari (2021) containing seven close-ended questions with a 5-point Likert scale and two open-ended questions focusing on the current features available on the web, operation accessibility, and web design. The questionnaire was distributed to both groups as two Google Form links right after the trial session ended.

4. Findings

4.1. Lecturer questionnaire

The lecturer's questionnaire included 7 close-ended questions with a 5-point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree) and two open-ended questions covering three significant aspects: the features available on the web, operation accessibility, and the web design. In each close-ended question, lecturers were given a space to justify their choice related to their experience of utilizing WISSE in the trial. This section details the results of each aspect to unravel the two lecturers' experiences when running WISSE for their academic writing class from start to finish.

4.1.1. Features specific for lecturers on WISSE

Impression on the overall features currently available for lecturers to assess learners' writing on WISSE was prompted by three statements: (1) features on WISSE are easily recognized, (2) features on WISSE help assess learners' writing, and (3) one's likelihood to use WISSE for other writing courses. The results of the chosen 5-point Likert scale for each statement were coded and summarized in Table 1:

Table 1
Features for lecturers on WISSE.

Statements	Response	
	Lecturer 1	**Lecturer 2**
Features on WISSE are easily recognized	Agree	Strongly agree
Features on WISSE are helpful for assessing learners' writing	Neutral	Neutral

One's likelihood to use WISSE for other writing courses	Neutral	Neutral

While both lecturers reacted positively to a great extent that features of WISSE are recognizable, easily operated, and accommodating to assess learners' writing, they also pondered the possibility of adding distinguishing features that can differentiate WISSE from other interactive writing assessment websites. The participants' feedback aligns with the previous studies by Dillon (2006) and Tîrnăucă et al. (2017) which highlighted the importance of the user-friendliness and flexibility of human-computer interaction-based applications to get a more significant functionality. Then, to follow up on the participants' expectations of additional features in the WISSE, Fischer's (2001) study on applications built based on interactive systems can be an essential reminder for the researchers in this study. Fischer (2001) emphasized the importance of user modeling research that should always aim to make the system of the applications adaptable to users' specific background knowledge. Therefore, exploration to profile the backgrounds of the potential users of the WISSE should be performed through in-depth interviews.

Lecturers as participants in this study also conveyed that while providing comments for learners is feasible, it would be better if the researchers and developers of the WISSE also consider adding features where lecturers could directly attach comments on a specific part in the writing or a set of markings that could pinpoint learners to revise particular part only. From the lecturers' viewpoint, it might be possible that learners might be confused about which part of their writing was being commented on as the current feature of the 'personal comments' box could only accommodate the 'bigger picture'. With the addition of these features in the future, both lecturers anticipated utilizing WISSE again for their other writing courses, as it possesses a great potential to be an interactive writing assessment space bridging lecturers and learners to produce quality writing.

4.1.2. Operation accessibility of the features on WISSE

Lecturers were also asked about their experiences of operating the features on WISSE, which was instigated by two statements: (1) features on WISSE are easy to operate, and (2) features on WISSE provide clear instructions to follow. The results of their choices were coded and summarized in Table 2.

Table 2

Operation accessibility on WISSE.

Statements	**Response**	
	Lecturer 1	**Lecturer 2**

Features on WISSE are easy to operate	Agree	Strongly agree
Features on WISSE provide clear instructions to follow	Agree	Strongly agree

The responses, quite confidently, were in the spectrum of 'agree' and 'strongly agree,' indicating that both lecturers felt at ease when operating the features on WISSE—from making a temporary account, creating a temporary account for the trial, assigning learners, collecting the writing results, and providing their feedback. All features were also expressed to be simple to use without ambiguous instructions or leading them to a different end-point. This experience resonates with Waddell et al.'s (2015) study, pointing out that human-computer interaction applications, including web-based applications, must focus on usability and human experience.

Nevertheless, one lecturer noted the need to add a 'choose a language' feature where users can operate the web using their preferred language, English or Indonesian. The other lecturer also expressed her inconvenient experience; once she finished giving feedback on a learner's writing, the web always directed them to the teacher dashboard. Hence, they had to trace their way back to the 'assignment collected' page to check the writings of other learners. While it did not take the lecturer an exceptionally long time to go to the 'assignment collected' page, it was still an inconvenient experience and needed to be improved. Learning from Mistry & Rajan's (2019) study that experimentally explored various user experience parameters, it is worth noting that the purpose of user experience in the current technological era is to optimize user satisfaction. Therefore, the participants' inconvenient experiences while using the WISSE should be followed up carefully regardless of the many positive remarks given to the WISSE.

4.1.3. Overall design of WISSE

Lecturers shared their observations on the user interface of WISSE, which were prompted by the following statements: (1) the appealing design of WISSE and (2) the choice of words in English on WISSE is straightforward. The results were coded and summarized in Table 3.

Table 3

The overall design of WISSE.

Statements	**Response**	
	Lecturer 1	**Lecturer 2**
I find the design of WISSE appealing	Neutral	Agree

The language used on WISSE is easy to understand	Agree	Strongly agree

In terms of the design, both lecturers found that the design and overall user interface of WISSE were satisfactory, indicated by their response, which was on the spectrum of 'neutral' to 'agree'. Nevertheless, one lecturer mentioned that the font size could be increased, and the symbols could be re-illustrated to a more modern and simple design that appeals to the younger generation. Another lecturer also recommended that the researchers consider incorporating trendy colors to make the website considerably colorful and aesthetically pleasing to the eyes. This feedback conforms to Popov & Kuzmina's (2019) study revealing that the speed of visual information recognition on the user interface – the angular size of the character (font size), the font color, and the color of the user interface - directly impacts the ergonomic features of the interface. Previously, Darroch et al. (2005) argued that for jobs involving reading, interface designers for mobile computers should offer fonts ranging from 8 to 12 points to optimize readability for a broad spectrum of users.

Both lecturers agreed that using English as the primary language on WISSE was straightforward. However, they both noticed minor inconsistencies where a few words were in Indonesian, and others were in English. One lecturer stated that these inconsistencies can be redeemed by providing a feature where users can choose their preferred languages (Indonesian and English), as has also been brought up in the previous section. Alcantara-Pilar et al. (2018) reported that language choice could moderate the relationships between perceived risk, perceived usability, and satisfaction on e-commerce websites, affecting user experience. However, regardless of the hyper-central function of English on commercial websites (Kelly-Holmes, 2006), Nantel's & Glaser's (2008) study showed that perceived usability increases when the website was initially conceived in the native language of the user as it reduces cultural distance and impacts user evaluation.

Overall, the participants' experiences in utilizing the website were then concluded as they were asked to give a personal rating on a scale of 1 to 10, which is illustrated in Figure 1:

Figure 1. Lecturers' ratings of the overall website experience

Surprisingly, both lecturers gave one corresponding scale of 7 as their final evaluation, which could be interpreted as the accumulation of their response to the statements above. They believed that WISSE has the potential to become an outstanding website to help Indonesian learners who are also EFLs. However, with additional features and updated design, the web could reach a greater audience, including Indonesian academics needing help with academic and scientific writing in English. In the following section, lecturers further explored a few positive features WISSE can enhance.

4.1.4. Further input and recommendations from lecturers

Lastly, lecturers provide input and recommendations for the subsequent development of WISSE as prompted by the following open-ended questions: (1) existing features that can be improved on WISSE, and (2) suggestions and recommendations. By answering these questions, lecturers list their further input and other additional writing features that the researchers should consider and advance on the next version of WISSE to help users navigate the website better.

In response to the first question, lecturers mainly highlighted that the page where they tracked and provided feedback for learners' writings should be updated with a 'history' feature where they can monitor the progress of learners' writings and trace the changes on the text. Lecturers also hope that in the next version of WISSE, the box displaying the writing can be enlarged and, if possible, expanded into a full-screen scale to help lecturers navigate the writing better. Adding a toolbar to edit the writing is also expected, or an 'add suggestion' tool for lecturers to inform learners of a specific part they must revise without editing the text directly. Specifically, lecturers hope that WISSE can be occupied with a specific error marking with labels such as "S-V Agr" to inform learners of a subject-verb agreement error.

As for the response to the second question, both lecturers recommend several additional features to be added to WISSE, i.e., plagiarism checker, cohesion and coherent check, and peer-review feature where learners can access and review each other's work. This way, learners can learn how to provide constructive criticism and learn from their peers' work, not to mention that simultaneously, lecturers can promote independent collaborative work among learners from this specific feature.

4.2. Learner questionnaire

The questionnaire filled in by the learners retains a similar structure to the lecturers', with 7 close-ended questions on a 5-point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree) and two open-ended questions covering three significant aspects: the features available on the web, operation accessibility, and the web design (the questionnaire is available in the following appendix). Learners were also provided a space to justify their choice related to their experience of utilizing WISSE in the trial. However, as the number of learners participating in the trial exceeds those of the lecturers, a unique data presentation is illustrated and detailed in this section to unravel

28 learners' experiences when running WISSE for their academic writing class from start to finish.

4.2.1. Features specific for learners on WISSE

Learners share their impression of the overall features currently available for them to submit and navigate feedback given by lecturers on WISSE, which was prompted by three critical statements: (1) features on WISSE are easily recognized, (2) features on WISSE help navigate feedback given by lecturers, and (3) one's likelihood to use WISSE for other writing courses. The results of the chosen 5-point Likert scale for each statement were coded and summarized in Table 4:

Table 4
Features for learners on WISSE.

Statements	**Response**	
	Category	**%**
Features on WISSE are easily recognized	Agree	33.3%
	Strongly agree	66.7%
Features on WISSE are helpful for navigating feedback	Disagree	6.6%
	Neutral	40%
	Agree	26.7%
	Strongly agree	26.7%
One's likelihood to use WISSE for other writing courses	Neutral	53.3%
	Agree	26.7%
	Strongly agree	20%

After experiencing WISSE for submitting their writing assignment and receiving feedback from their respective lecturers, learners reacted positively to the available features on WISSE as indicated by the majority of learners choosing 'strongly agree' when they were instigated on whether features on WISSE were particularly straightforward to navigate and were recognizable. Despite that, a few of them also bring in several considerable inputs, i.e., the addition of in-house 'editing tools' and 'formatting text' features to help them edit their writing in the existing space on the web without having to keep re-submitting a new version over and over again. Learners also expect features such as 'un-submit assignment' and notifications or reminders to remind them of deadlines for assignment submission assigned by their lecturers.

Incidentally, this prompt interrelates with how the current features of WISSE can help them navigate feedback provided by lecturers, in which learners have much to commend, projected by the variety of responses this prompt received spanning from the spectrum of 'disagree' to 'strongly agree'—although it is evidenced that to the majority of learners, the features are already satisfactory. Several learners provided their

suggestions for the improvement of WISSE; one of them is that there should be a different interface in the space where their writing is when they receive feedback from their lecturers. It can be in the form of a specific marking or highlight to help learners navigate the parts where they should revise. Learners also think that information on the number of learners registered in a specific class must be displayed for the public, or for at least users admitted to the class. Other features i.e., 'automated save' is expected to be added on the next version of the website, as well as a bigger 'chatbox' so that learners can read the text or conversation there. As for whether learners will likely keep using WISSE for their subsequent writing courses, all of them react positively and look forward to the next upgraded version of WISSE determinedly, as they also anticipate the development of additional features that they need to increase their writing productivity in the previous prompt.

4.2.2. Operation accessibility on WISSE

Learners' experience when operating WISSE from start to finish was also accounted for as prompted by two statements: (1) features on WISSE are easy to operate, and (2) features on WISSE provide clear instructions. The results of their choices were coded and summarized in Table 5:

Table 5
Operation accessibility on WISSE.

Statements	**Response**	
	Category	**%**
Features on WISSE are easy to operate	Agree	73.3%
	Strongly agree	26.7%
Features on WISSE provide clear instructions to follow	Neutral	13.3%
	Agree	40%
	Strongly agree	46.7%

All learners positively responded to the straightforward operation of features on WISSE; incidentally, they reflected on how instructions were easily perceived and understandable. However, as learners recognized that WISSE was still a newly developing website to help them receive feedback and increase writing productivity, they expected a user manual guide embedded on the web to direct new users for future use. A couple of learners shared that they still encountered difficulties in the trial session as they, as first-time users, utilize the web. Should there be a user guide, it would undoubtedly aid new users in using the web for their academic writing purposes to the fullest.

4.2.3. Overall design of WISSE

In terms of WISSE's overall design and user interface, learners shared their observations which were prompted by the following statements; (1) the appealing design

of WISSE and (2) the choice of words in English on WISSE is simple. The results were coded and summarized in Table 6:

Table 6
The overall design of WISSE.

Statements	Response	
	Category	**%**
I find the design of WISSE appealing	Disagree	6.65%
	Neutral	6.65%
	Agree	26.7%
	Strongly agree	60%
The language used on WISSE is easy to understand	Agree	33.3%
	Strongly agree	66.7%

Learners observed that the overall design of WISSE was appealing enough as an academic website. They detailed that the color palette and combination reflected the professionality and formality of an academic website. At the same time, WISSE's UI and UX were considerable in quality, practical, aesthetically pleasing, and easy for learners to operate. However, learners noticed that the color of the logo WISSE in the top left corner as they opened the dashboard was all-white and almost invisible, and only half the part SSE was readable. As for using English as the primary language on WISSE, learners felt satisfied as they felt the words and phrases were understandable with a clear-cut end-point when a specific feature or button was clicked. Even so, learners still hoped that there would be additional language choices so that users could choose to use either Indonesian or English to make it easier for domestic and international learners should WISSE be disseminated further.

Learners' overall experience when utilizing the website was then concluded with a personal rating from a scale of 1 to 10, which is illustrated in Figure 2:

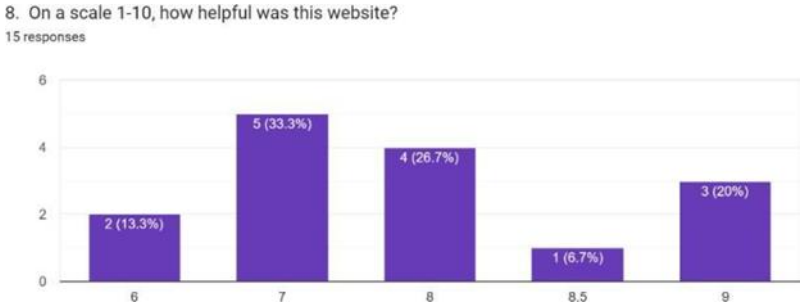

Figure 2. Learners' ratings of the overall website experience

As depicted in Figure 2, learners gave ratings on a scale of 6 to 9 as their final evaluation, reflecting each learner's different experience when operating WISSE. Like the lecturers, learners were all aware that WISSE could become a prospective website to

help them increase writing productivity, especially regarding academic writing, which is problematic. Learners expected that more features, as detailed in the previous prompts, would be forwarded in the next upgraded version of WISSE, especially since a few learners also mentioned that there would be a probability that international learners could benefit from the website. In the following section, learners' overall experience was concluded with a few suggestions they added for considerations to enhance WISSE in the future.

4.2.4. Further input and recommendations from learners

Last, learners provided input and recommendations for the subsequent development of WISSE as prompted by the following open-ended questions: (1) existing features that can be improved on WISSE, and (2) suggestions and recommendations. For the most part, learners should have gone into details when they answered these questions, as they already included all their input in the earlier prompts. That being the case, they only brought up a few essential aspects that could be further considered by the researchers and the developers of WISSE; that is, by adding more features such as 'upload document' or 'sync with Google Docs,' as well as 'automated plagiarism checker.'

5. Discussion

This paper reports the results of a user trial of WISSE as an integrated writing assessment tool to determine whether it meets the user's needs and gather opinions and suggestions for further development. This trial is limited to the front end of website development or the user interface and not on the back end or server side. Participants of this trial, henceforth referred to as users, can access WISSE's current features, including task collection, integrated spelling and grammar checkers, a scoring box, a private discussion box to facilitate one-on-one communication between teacher and learner, as well as a commentary box for teachers to give their feedback once they (both teachers and learners) log into the web with their account. Web aspects assessed in this trial are features available on the web, operation accessibility, and web design.

Concerning the features available on the web, users from both groups generally agree that the currently available features on WISSE are easily recognized; however, a few users were not convinced that they helped navigate feedback given by lecturers. Indeed, while automated grammar and spelling checkers are available, users still demand easy access to private comments or a more expansive space for a chat box to communicate with experts to improve their manuscripts. Reflecting on how the practice of providing and receiving computer-mediated feedback has become a favorable (and most of the times affordable) strategy over the past couple of decades, where AWE feedback can potentially support learner autonomy (Zhang & Hyland, 2018), combining automated feedback with teacher feedback is believed to be the best strategy in the context of process writing approach (Kerr, 2020). The developer team of WISSE believes that AWE feedback cannot be treated as a substitution of experts' comments and suggestions, which Hyland

and Hyland (2006) highlighted almost two decades ago, but only as the early stage of process writing, considering English is not the learners' first language. Consequently, properly integrating teachers and automated feedback to cater to users' needs will likely boost their WISSE experience and increase their likelihood of using it for writing courses.

Concerning the operation accessibility of features available on WISSE, all users react positively to the prompts with varying degrees from neutral to strongly agree. Because navigating or exploring the web is driven by specific goals, it needs to direct its users and visitors to the specific page they want to go to by choosing the appropriate word choice that effectively and efficiently represents the content of that page (Gillis, 2017; Katsanos et al., 2010). Both groups of users agree that all features of WISSE have directed them to the right page, and the word choice for all features is straightforward without ambiguous instructions. There is, however, a minor error where one lecturer points out that they have to go to a certain length to go back to the 'assignment collected' page to check other writings, and while going back to the desired page is not an arduous task, it is understood as inconvenient. It should be addressed further in the next version of WISSE. After all, the researchers believe user experience is essential in web development to ensure users are comfortable accessing WISSE's features.

After experiencing WISSE for the first time, users, particularly from the lecturer group, suggest adding several significant features that have yet to be developed on WISSE. It has been mentioned previously that WISSE is built upon the understanding that learner growth and writing proficiency are paramount. To achieve that, both lecturers believe that incorporating a space for peer review feature can train learners to make constructive criticism when asked to practice giving feedback to their peers and promote independent-collaborative work simultaneously. While peer feedback brings various advantages for learners, one of which is the ability to reflect on what has been studied in the classroom by evaluating their peer's manuscript and, at the same time, highlighting their own, the teacher's workload can also be minimized. An experimental study by Lv et al. (2021, p. 651) unveils that online peer feedback (OPF) is likely to encourage learners to be more productive in writing, i.e., produce more sentences with a variety of word types and lexical items and avoid plenty of grammar mistakes. However, to improve the learning experience and prevent negative backlash, Kerr (2020) mentions several strategies as precautions, such as providing written rubrics that learners can refer to when assessing their peer's manuscripts, which WISSE can benefit from upon developing the feature. Another vital feature suggested that was postponed before the user trial is the built-in automated plagiarism checker, which can assist both groups of users in checking for plagiarism in one place and using the feature at an affordable cost. Last but not least, lecturers also hope for specific error marking where lecturers cannot only point out the mistakes but also give learners helpful "hints" to promote independent learning. This suggestion is indispensable as it can add more unique value to WISSE as a web-based writing platform.

6. Conclusion

Enhancing the writing quality can be challenging, especially in providing feedback for learners' work. WISSE, one of the integrated writing supporting tools, is specially designed with features that hopefully can help lecturers give structured feedback. Based on the users' experiences and suggestions, it can be said that WISSE can be used to give feedback on academic writing but still needs some improvements. Overall, using digital tools in class, especially website-based ones, has many benefits that can enhance learners' competence, especially in academic writing.

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