Research Article:

Validity and Practicality of Web-Based Self-Study Learning Platform to Improve Students' English Proficiency

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ABSTRACT

This article examines the validity and practicality of the web-based self-study learning platform for English proficiency developed by the English Department of Universitas Negeri Padang. It explores the conversion of the platform into selected online booklets and the requirement for students to respond to exercise questions, receiving automated feedback within a short period to improve their English skills. A descriptive quantitative research design was employed to conduct this study, which involved administering questionnaires to 18 content and technical professionals and 177 students to assess the feasibility and value of the proposed platform. The results of the study indicate that the identified platform is a highly valid platform, not only from the perspective of content, pedagogy, and self-study, but also from the technical perspective. In addition, it is very practical in terms of usability, accessibility, adaptability, feedback, and cost. The current study demonstrates that the module can help university students engage in independent learning and enhance their English language skills when easily accessible, comprehensive, and versatile tools are utilised. These results ultimately demonstrate that the web-based learning platform can be effectively applied to self-regulating learning and cognitive development of the necessary language skills. Future research would need to explore the effects of performance and flexibility on university students in other areas more deeply. At the same time, the study reveals the direction of future development of the web-based learning environment as a means of intensifying possibilities for implementing conventional learning methods within an educational organisation.

Keywords: E-learning, English proficiency, independent learning, self-regulation, web-based learning

INTRODUCTION

In the three years since the COVID-19 pandemic emerged at the end of 2019, there has been a significant increase in the implementation of independent learning (Reimers et al., 2020; Sutiah et al., 2020; Firmansyah et al., 2021). With all schools closed, students must study online at home, making independent learning practice inevitable (Bennet, 2006; Emanuel, 2020; Pokhrel & Chhetri, 2021). This period has been particularly frustrating, especially for those who have not previously experienced online classrooms, such as many public schools in Indonesia. Before the pandemic, the learning process in most public schools in Indonesia was conducted face-to-face in classrooms. Therefore, the sudden transition to online learning has been very challenging and stressful for teachers and students due to insufficient preparation in terms of cognitive and mental aspects (Casacchia et al., 2021; Besser et al., 2022). Before the onset of COVID-19, independent learning had garnered significant scholarly interest due to the rapid advancement of technology (Ovilia et al., 2023). Continued technological progress has profoundly impacted the education system, resulting in numerous breakthroughs over the past decade, such as the adoption of blended learning, flipped learning, and online learning, all of which foster students' independence in learning. Drawing from previous literature, numerous factors have been identified as contributors to the success of independent learning, among which are students' self-regulated learning skills (Zimmerman, 2002; Karataş & Arpacı, 2021).

According to Zimmerman (2002) and Schunk and Zimmerman (2012), self-regulation entails a directed process that involves achieving specific goals, encompassing the individual's cognitive, affective, and behavioural aspects. Barnard-Brak et al. (2010), de la Fuente et al. (2015), and Russell and Warner (2017) defined self-regulation as an individual process that encompasses proactive behaviours such as time management, utilising learning strategies, environmental structuring, and seeking assistance in goal attainment and leading individuals to take charge of their learning and undertake necessary actions to achieve their objectives. Building on this concept, students must recognise their strengths and weaknesses to effectively set learning goals. Self-regulation is essential in education and for students' future careers (Assareh & Bidokht, 2011). However, developing this skill requires more than mere motivation; it necessitates self-management, determination, and control (O'Shea, 2003; Peterson et al., 2021).

One merit of self-regulated learning skills is their correlation with lifelong learning, as demonstrated by the strong relationship between these variables (Tekkol & Demirel, 2018). Lifelong learning has emerged as a central goal in 21st-century education, as noted by Chen and Li (2021), who emphasised that self-regulated learning skills ensure individuals' sustainability and maximise their potential to achieve future goals. Furthermore, they contended that lifelong learning is essential for adapting to the rapid changes brought about by globalisation and digitalisation. Although the prospect of self-directed learning (SDL) may initially appear daunting to some, technological advancements have made it increasingly achievable; the rapid evolution of technology has catalysed significant changes in the educational landscape, notably by providing an abundance of easily accessible learning materials. This expanded resource pool, beyond traditional textbooks, undoubtedly benefits students, facilitating greater flexibility and autonomy in their learning endeavours.

In the current digital era, technology has become pivotal in streamlining the management of students" learning processes (McHaney, 2023).

Compared to the not-so-distant past, independent learning has become more accessible, with technology offering valuable assistance and diverse learning options (Zhao & Chen, 2016). Web-based learning is an accessible technology that can be accessed independently to promote learning, as Sarıca and Çavuş (2008) discussed. They characterised web-based learning (WBL) as being exclusive to online platforms, without in-person interactions or physical learning resources (Cook, 2007). The accessibility and flexibility of WBL enable the collapse of time and space, facilitating convenient access to academic resources. However, Sarıca and Çavuş (2008) emphasised the importance of adequately executing WBL to effectively support learning outcomes. This entails aligning learning resources with learners' needs and goals while providing sufficient support to address potential technological challenges that may arise during the learning process.

To effectively support learning outcomes, the English Department at Universitas Negeri Padang (UNP) has begun developing a web-based platform with digitised exercises from English Proficiency Course booklets to address such educational challenges. This platform provides convenient access for students and instructors, allowing them to complete and submit exercises digitally. Prompt feedback helps students track their progress and identify areas for improvement. This self-study approach emphasises learner responsibility and independence through access to online resources rather than traditional classroom instruction. Studies have demonstrated that WBL, also known as online or e-learning, facilitates interactive communication through email, video conferencing, and live-streamed lectures, often offering static pages containing printed course materials (McKimm et al., 2003; Chatterjee & Chakraborty, 2021; Lin et al., 2022; Arabia & Villalobos, 2022). As Cook (2007) found, implementing Work-Based Learning has several advantages. It creates personalised learning experiences by bridging geographical divides, allowing schools to interact and exchange resources. It also eliminates course material duplication and reduces printing costs. Furthermore, it allows for greater flexibility regarding when students can participate. Teachers can quickly update or modify courses in response to changes in medical practice or student input, eliminating the need for costly reprinting of course syllabi.

Validity and practicality are also important concepts that pertain to the accuracy and soundness of the findings and conclusions drawn from a study. Validity ensures that the research measures what it intends to measure and that the results are reliable and trustworthy. In the realm of quantitative research, validity can be categorised into several types: Internal validity, external validity, construct validity, and statistical conclusion validity (Cook & Campbell, 1979). Practicality relates to how users (or other experts) perceive the intervention as usable and preferable under typical conditions. On the other hand, practicality is used to examine the level of practicality associated with development, assessing the degree of practicality involved in producing instructional materials.

Careful consideration must be given to resource availability, technology infrastructure, and platform adaptability to meet departmental requirements and specific demands, ensuring that web-based tools are advantageous for teachers and students, thereby improving the quality of instruction and learning in teaching English proficiency. Therefore, through self-

regulatory abilities and perspectives on technology utilisation, this study aims to assess the validity and practicality of a web-based self-regulated learning platform for improving students' English proficiency. It specifically seeks to answer the following research questions:

1. How do lecturers perceive the validity of the web-based learning platform developed by the English Department at Universitas Negeri Padang?
2. How do students perceive the practicality of the web-based learning platform developed by the English Department at Universitas Negeri Padang?

LITERATURE REVIEW

English Language Proficiency

Richards (2006) described English proficiency as the ability to use the language effectively across diverse communicative contexts, employing the four essential language skills: reading, listening, speaking, and writing. Renandya et al. (2018) alluded to five core dimensions for assessing English proficiency: accuracy, fluency, complexity, appropriacy, and capacity. Accuracy refers to the precise use of language, encompassing correct pronunciation, grammar, and vocabulary; fluency involves the seamless expression of ideas, facilitating effective communication with minimal disruptions; complexity reflects the ability to use sophisticated language, demonstrating an extensive vocabulary and diverse grammatical structures; appropriacy examines whether language use aligns with the context, purpose, and intended audience; and, capacity evaluates an individual's ability to engage in discourse and written communication on various topics with varying degrees of complexity.

Moreover, Renandya et al. (2018) emphasised that an effective English language teacher must possess both academic expertise and sufficient proficiency in the target language to enable effective instruction. Beyond educational contexts, English proficiency carries substantial personal and professional benefits. Adytia (2020) observed that English proficiency enhances verbal and written communication skills while fostering expanded social connections, given its role as a global lingua franca. Furthermore, English proficiency is strongly associated with career advancement. Rao (2016) noted that English learners are better equipped to navigate English-speaking work environments, comprehend complex information, and articulate their thoughts confidently, improving their career prospects and access to broader economic opportunities.

Self-Directed Learning

Self-directed learning (SDL), with its roots in adult education, is an approach that has also been applied to learners in elementary and secondary schools, where they are viewed as responsible owners and managers of their learning process. It integrates self-management, focusing on managing the context, including the social setting, resources, and actions, with self-monitoring, which involves the process by which learners monitor, evaluate, and regulate their cognitive learning strategies (Bolhuis, 1996; Garrison, 1997). In SDL, control gradually shifts from the teacher to the learner. Learner's exercise great independence in setting learning goals, deciding what is worthwhile learning, and how to approach the learrning task within a given framework (Morrow et al., 1993).

Garrison (1997) asserted that self-directed learners demonstrate a greater awareness of their responsibility in making learning meaningful and in monitoring their progress. Taylor (1995) likewise found that learners are curious and willing to try new things, view problems as challenges, desire change, enjoy learning, and are motivated, persistent, independent, self-disciplined, self-confident, and goal-oriented. Self-directed learning enables learners to become more effective and socially engaged individuals. Earlier, Guthrie et al. (1997) noted that self-directed learners in a Concept-Oriented Reading Instruction (CORI) programme demonstrated the ability to search for information across multiple texts, employ different strategies to achieve their goals, and represent ideas in various forms, such as drawing and writing. Morrow et al. (1993) observed that with proper planning and implementation, SDL can encourage students to develop their own rules and leadership patterns.

Web-Based Self-Study Learning Platform

Sarıca and Çavuş (2008) defined WBL as an educational approach that relies entirely on the internet and e-learning technologies for communication and engagement, removing the need for physical materials or face-to-face interactions. They highlighted the growing importance of flexible education and digital tools in modern learning systems, sparking interest in understanding the methods, mechanisms, and motivations behind WBL. Their analysis emphasised that the success of WBL depends on aligning learning materials with learners' goals and providing adequate support to overcome technological challenges. Critical factors for effective WBL include user-friendly design, seamless resource integration, and adaptability to diverse learner needs, all of which contribute to improved learning outcomes.

Over time, WBL has become a cornerstone of contemporary education. It leverages internet-based technologies to provide the flexibility and accessibility needed to overcome traditional time and location constraints. Its popularity underscores its potential to support long-term learning goals when implemented effectively. This involves seamlessly delivering academic content, addressing individual learner needs, and mitigating challenges through robust technological support and thoughtful pedagogical strategies. Moreover, WBL has extensive benefits. Its ability to present information in varied formats enhances accessibility and inclusivity, while its focus on self-directed and active learning promotes deeper engagement. Compared to traditional educational methods, WBL enables learners to engage with content at their own pace, promoting autonomy, critical thinking, and a more personalised learning experience. Cook (2007) outlined five key advantages that set WBL apart from traditional educational methods:

1. Distance independence: WBL enables students from different locations to participate in the same educational activities, making it ideal for learners across cities, countries, or globally.
2. Flexible scheduling: Students are not bound by rigid class schedules and can access course materials conveniently, accommodating individual preferences and daily routines.
3. Individualised Learning: WBL empowers learners to customise their educational experiences. They can progress at their own pace, revisit challenging topics, or explore advanced content when ready.

4. Updated and accessible materials: WBL ensures that instructional content is easily updated and readily available, eliminating reliance on printed materials and reducing costs. As long as the platform is active, learners can access materials without restriction.

5. Documentation and assessment: Online platforms simplify the assessment process by providing immediate feedback and maintaining detailed records of learners' progress, enhancing transparency and efficiency.

These advantages highlight WBL's transformative potential in creating more accessible, flexible, and learner-centered educational environments. As a highly effective and adaptable approach, WBL integrates diverse resources, promotes personalised learning, and ensures access to up-to-date materials through streamlined assessment processes. By addressing the limitations of traditional education and embracing flexibility and accessibility, WBL continues to shape the future of education, meeting the diverse needs of learners worldwide. However, to fully realise the potential of WBL, its validity and practicality must remain central considerations. Ensuring that WBL platforms are aligned with educational objectives, adaptable to technological advancements, and responsive to learner needs is essential for maintaining their effectiveness and relevance.

Validity and Practicality

Cook and Campbell (1979) defined validity as the extent to which a study accurately measures what it intends to measure, yielding reliable and trustworthy results. High validity signifies that the measurement tools employed are precise and well-suited to their intended purpose. In WBL, ensuring validity involves addressing several critical factors to establish the platform's effectiveness as an instructional medium. These factors include the alignment of learning objectives with content delivery, the platform's usability, and its ability to engage learners and facilitate meaningful learning outcomes.

1. Content: Ogunleye et al. (2013a) highlighted that an effective WBL platform should offer a rich repository of information, activities, and materials that engage learners. These platforms must enable learners to complete tasks, undergo quick assessments, and receive immediate feedback. Additionally, Simon (2015) stressed the importance of ensuring that the materials provided are accurate, current, and contextually appropriate.

2. Pedagogical aspect: The pedagogical value of web-based platforms lies in their ability to support collaborative and interactive learning environments. According to Seufert et al. (2002), these platforms facilitate shared learning objectives through electronic interactions among students and teachers. Palloff and Pratt (2007) further argued that web-based platforms foster a social framework, enabling collaboration and maintaining the integrity of pedagogical approaches, even in distributed learning contexts.

3. Self-study aspect: Online learning platforms are particularly suited to promoting SDL strategies. Meyer et al. (2008) and Hia (2021) agreed that these platforms enhance self-study by offering structured opportunities for assessment, documentation, and interaction between learners and educators. Online platforms bridge geographical and temporal gaps, accelerating access to and updating

learning resources, thereby optimising the self-study experience.
4. Technical aspect: Another critical characteristic of effective WBL platforms is their technical simplicity. They require minimal technical skills to operate and ensure accessibility for all users. Tosheva 2016) added that such platforms should function seamlessly across multiple devices without requiring additional software installations, thus maximising usability.

Practicality in education refers to the extent to which users find an intervention appealing, feasible, and applicable under typical conditions (van den Akker, 1999; van der Akker et al., 2010). In the context of WBL platforms, practicality encompasses ease of use, accessibility, and integration into the educational process. Brown (2004) and Bachman and Palmer (1996) outlined several essential indicators of practicality for an effective web-based learning (WBL) platform. These factors ensure the platform meets both learners' and educators' needs while fostering an efficient and engaging educational experience:

1. Usability: The platform should be intuitive and easy to navigate, allowing learners to interact with its features and content without difficulty or confusion.
2. Accessibility: A practical platform must be accessible anytime and anywhere, supporting various devices and web browsers to enable flexible learning.
3. Adaptability: It should cater to diverse learning styles and preferences, allowing learners to have some control over their learning experience to suit their individual needs.
4. Integration: The platform should seamlessly connect with existing learning management systems (LMS) and other educational tools, ensuring compatibility with the broader teaching and learning environment.
5. Efficiency: It should facilitate the achievement of learning objectives in a reasonable timeframe, promoting effective and streamlined educational outcomes.
6. Relevance: The materials and resources provided must be current, aligned with learners' needs and interests, and directly tied to the intended educational goals.
7. Feedback and assessment: A promising platform includes features for monitoring progress and providing timely, constructive feedback to improve learners' performance.
8. Technical support: Adequate support should help resolve technical difficulties, ensuring that students and educators can use the platform without significant disruptions.
9. Cost-effectiveness: The platform should strike a balance between affordability and benefits, offering good value for both institutions and learners.

These indicators collectively ensure that WBL platforms are practical and effective, creating an environment that supports a positive and productive learning experience. Practicality is crucial in determining the success and applicability of WBL platforms and educational testing systems. As Brown (2004) and Bachman and Palmer (1996) highlighted, it requires a careful balance of costs, time, administrative efforts, human resources, and thoughtful design. The key indicators—usability, accessibility, adaptability, integration, efficiency, relevance, feedback and assessment, technical support, and cost-effectiveness—provide a comprehensive framework for evaluating the practicality of these platforms. By addressing

these aspects, WBL platforms can better align with user needs and expectations while maintaining simplicity, efficiency, and affordability. This approach enhances their overall value and utility, positioning them as a vital tool in the modern educational landscape.

METHODOLOGY

Research Design

This study employed a descriptive quantitative research design to address the research questions regarding students' and teachers' perceptions of the validity of the WBL platform developed by the English Department at Universitas Negeri Padang (UNP). As Gay et al. (2012) stated, descriptive design is used to gather people's opinions, perceptions, beliefs, and attitudes. This approach is particularly appropriate for educational settings where the goal is to describe and interpret existing conditions without manipulating variables. By focusing on participants' responses, the study aimed to provide a detailed and data-driven understanding of the platform's effectiveness from multiple stakeholder perspectives.

Research Population and Sampling Validity

The population for the validity test consisted of experts in content, language teaching, and technical aspects related to WBL. Specifically, the validity test involved 18 lecturers from the English Department of UNP who specialise in English Proficiency Courses and one lecturer from the Faculty of Education at UNP, specialising in educational technology, who assessed the platform's technical aspects. The sample selection for the validity test employed convenience sampling, targeting experts who were available and willing to provide feedback. A total of four experts participated in evaluating the platform, focusing on its alignment with instructional goals, technical feasibility, and language appropriateness.

Population and Sampling for the Practicality Test

The population for the practicality test comprised 177 students enrolled in seven classes of the English Proficiency Course at UNP during the 2023 academic year. Following the guidelines of Gay et al. (2012), which suggest that a sample size of 10% of the population is sufficient for descriptive research, a random sampling technique was employed. Three students were chosen randomly from each class, resulting in a sample size of 25 students. As a result, 14% of the population was selected to ensure representative data. Specifically, this method ensured a balanced representation of all participating classes.

Instruments

Experts conducted a thorough validation process to ensure the validity of the instruments used to evaluate the WBL platform. The instruments measured vital aspects, including usability, accessibility, adaptability, integration, efficiency, relevance, feedback, and assessment, as well as technical support and cost-effectiveness, before being administered to participants. A closed-ended questionnaire was used as the primary data collection instrument to gather participant insights and assess the platform's performance. It was

developed for a validity test, comprising 20 statements rated on a 4-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree)—this questionnaire aimed to evaluate the content, pedagogical, and technical dimensions of the self-study platform. Specific categories assessed included usability, accessibility, content alignment with learning objectives, and technical simplicity (see Appendix A). Additionally, a second closed-ended questionnaire containing 20 statements, rated on a 4-point Likert scale, was used to measure the practicality of the platform (see Appendix B). This dual approach provided a comprehensive evaluation, ensuring the platform's effectiveness and practicality for self-directed learning.

Validity and Reliability Test of the Instrument

Four experts reviewed the questionnaires to evaluate two critical aspects. First, they assessed content validity to ensure that the statements accurately reflected the platform's intended learning objectives and usability. Second, they examined face validity to confirm that the language used in the questionnaire was clear, appropriate, and easy to understand. To test the reliability of the questionnaire, a pilot study was conducted with a small group of participants before the primary research. Cronbach's alpha was calculated to determine the internal consistency of the questionnaire items, with a value of 0.70 or higher considered acceptable for educational research. This process ensured that the questionnaire was valid and reliable for evaluating the platform effectively.

Data Collection

The data collection process was conducted in two phases. The first phase was for the validity test. In this phase, experts were provided with the questionnaires and clear instructions. They were given ample time to assess the platform based on their content, pedagogy, or technical expertise. The second phase involved a practical test. Selected sampled students were briefed on the purpose and procedure of the study. Each participant completed the questionnaire within 30 minutes, providing their responses anonymously. Google Forms was selected as the most effective way to distribute the questionnaire because it is also convenient for research respondents to fill out the forms simply using their mobile phones. Before collecting the data, the researcher ensured that all ethical protocols, including informed consent and confidentiality, were followed throughout the data collection process.

Ethics Approval

The Ethical Committee of Universitas Negeri Padang, Indonesia, approved this study on 17 April 2023 (Ref. No. 97B/UN35.15/PL/2023).

Data Analysis

The data analysis involved several steps to ensure clarity and precision in interpreting the results. First, the total responses for each statement were summed and divided by the maximum possible score to calculate the average for each statement. Next, the averages for each validity category were determined by totaling the responses for all statements under that category and dividing by the total points assigned. Finally, the overall average validity score was computed by aggregating the scores across all categories and dividing by the total

number of points allocated to all categories. These calculations enabled the researchers to evaluate the participants' perceptions of the WBL platform's validity. For practicality, the total score for each aspect was divided by the maximum possible score to calculate the average. The same categorisation scale was applied to interpret the practical results. The results of both tests were tabulated and summarised to provide insights into the platform's performance and areas for improvement (Soriano-Alcantara et al., 2025). To analyse the results, the average scores were categorised using the criteria shown in Table 1.

Table 1. Validity and practicality criteria in terms of the responses after using WBL

Interval score	Criteria
3.26 < x ≤ 4.00	Very valid/very practical
2.51 < x ≤ 3.25	Valid/practical
1.76 < x ≤ 2.50	Less valid/less practical
1.00 < x ≤ 1.75	Not valid/not practical

RESULTS

Validity of Web-Based Self-Study Learning Platform to Improve Student English Proficiency

Content validity

Content is one of the key indicators used to assess and measure the validity of a WBL platform. Three content experts assessed ten statements to ensure the platform's content was valid. The results of the content validity test are shown in Table 2.

Table 2. Content validity web-based self-study learning platform

No	Statement	Mean	Category
1	This WBL platform is relevant, which means that it covers the topics contained in Interchange Workbook 1.	4	Very valid
2	The exercise material contained in this WBL platform is up-to-date.	4	Very valid
3	The exercise material contained in this WBL platform is accurate.	3.7	Very valid
4	This WBL platform includes a variety of question types.	4	Very valid
5	The list of answers given in the WBL platform corresponds to the question asked.	4	Very valid
6	There are no typos in the questions and answers in this WBL platform.	3.7	Very valid
7	The instructions given in the WBL platform are easy to understand.	4	Very valid

Table 2. *(Continued)*

No	Statement	Mean	Category
8	The instructions given in the WBL platform align with the tasks that are going to be performed.	4	Very valid
9	The content in this WBL platform is organised and arranged logically.	4	Very valid
10	The content in this WBL platform is organised and arranged coherently.	4	Very valid
Average		3.9	Very valid

The materials in a WBL platform must be accurate, current, and appropriate (Simon, 2015). As outlined in Table 2, the evaluation results for these categories are reflected in Statements 1–3, rated as "very valid" with scores of 4, 4, and 3.7, respectively. The experts also assessed the question types, the alignment of answers with their corresponding questions, and the clarity and accuracy of the instructions. These aspects were similarly rated as "very valid," with scores for Statements 4–8 recorded as 4, 4, 3.7, 4, and 4. Furthermore, the experts noted that the platform's content was logically and coherently organised, as indicated by Statements 9–10, both of which received a mean score of 4, again rated as "very valid." Overall, the content validity test yielded a mean score of 3.9, confirming the platform's content as "very valid." One expert highlighted that the content was appropriate and offered varied question types, which made the WBL platform engaging and well-suited for its intended purpose.

Pedagogical validity

The pedagogical validity of the WBL platform was evaluated using eight statements, which were assessed by four experts. The experts concurred that the platform aligned well with established pedagogical principles and practices. As shown in Table 3, this alignment is reflected in Statement 1, which scored 3.5 and was rated "very valid." The platform also allowed teachers to customise access to exercises, as indicated by Statement 2, which scored 3.75 and was likewise rated as "very valid." Additionally, the experts agreed that the platform effectively facilitated communication between teachers and students. This aspect is captured in Statement 3, which also scored 3.5, affirming its rating as "very valid." These results highlight the platform's strong alignment with pedagogical requirements and support for effective teaching and learning practices.

Table 3. Pedagogical validity web-based self-study learning platform

No	Statement	Mean	Category
1	This WBL platform aligns with established pedagogical principles and practices.	3.5	Very valid
2	This WBL platform provides teachers the ability to customise the student's access to the exercise.	3.75	Very valid

Table 3. *(Continued)*

No	Statement	Mean	Category
3	This WBL platform facilitates communication between teachers and students.	3.5	Very valid
4	This WBL platform enables teachers to monitor student performance even if they are not physically present.	4	Very valid
5	This WBL platform helps the teachers update the exercise materials, allowing them to maintain the quality of the content to keep up with the curriculum.	4	Very valid
6	This WBL platform enables teachers to give feedback on students' works.	4	Very valid
7	This WBL platform helps the teachers review students' work because the assessment is carried out automatically.	3.75	Very valid
8	This WBL platform enables teachers to record students' performance results.	4	Very valid
Average		3.8	Very valid

Moreover, the experts found that the WBL platform enabled teachers to monitor student performance, update exercise materials, and provide feedback on students' work. Statements 4–6 indicated that these statements were "very valid" because these statements scored 4. The experts also found that the WBL platform helped teachers assess and record students' work. This was supported by Statements 7–8, considered "very valid," with scores of 3.75 and 4, respectively. As a result, the experts considered the WBL platform's pedagogical validity "very valid," with a total mean score of 3.8. In addition, one of the experts suggested providing further explanations and more examples about the quiz material after the students had completed the exercise and exhausted their attempts. This was thought to help students comprehend the material more thoroughly and learn not to make the same mistake in the future if given the same type of questions.

Self-study validity

Self-study was one of the main objectives of developing the WBL platform. The self-study validity measurement was conducted by assessing five statements. Four experts evaluated these statements. The result of the self-study validity test can be seen in Table 4.

Table 4. Self-study validity web-based self-study learning platform

No	Statement	Mean	Category
1	This WBL platform provides opportunities for students to engage in the process of independent learning.	4	Very valid
2	This independent learning process provides flexibility for students to set their agendas to do the exercises.	4	Very valid

Table 4. *(Continued)*

No	Statement	Mean	Category
3	This independent learning process makes it easier for students because the WBL platform can be accessed anytime and anywhere as long as there is an Internet network.	4	Very valid
4	This WBL platform enables students to review their works.	3.75	Very valid
5	This WBL platform enables students to repeat the same exercises to remedy errors discovered in a prior attempt.	3.75	Very valid
Average		3.9	Very valid

The experts unanimously agreed that the WBL platform effectively supported independent learning for students. This was reflected in Statement 1, which received a score of 4 and was rated "very valid." They also found that the platform's design for independent learning helped students organise their learning schedules efficiently, as indicated by Statement 2, which scored 4 and was rated "very valid." Additionally, the platform was noted to eliminate barriers related to time and location, making learning more accessible. This feature was highlighted in Statement 3, which received a score of 4, confirming its "very valid" rating. The experts further observed that the platform allowed students to review completed exercises and make corrections based on their initial attempts. This capability was supported by Statements 4 and 5, both of which received a score of 3.75, also rated as "very valid." Overall, the self-study aspect of the WBL platform was deemed "very valid," with a total mean score of 3.9. This highlights the platform's strong ability to foster independent learning and effectively support students in managing their learning processes.

Technical validity

The technical validity was also crucial to ensure that the WBL platform performed effectively when in operation. As shown in Table 5, an education technology expert measured this indicator by assessing eight statements. The experts found that the WBL platform worked well on different devices. This was demonstrated by Statements 1–2, which scored 3, indicating "valid." They also agreed that the WBL platform could be accessed anytime and anywhere without the need for extra installation of other apps. This was supported by Statements 3–4, scoring 4, indicating "very valid."

Table 5. Technical validity web-based self-study learning platform

No	Statement	Mean	Category
1	This WBL platform works well on laptops/computers.	3	Valid
2	This WBL platform works well on smartphones/tablets.	3	Valid
3	This WBL platform is accessible anywhere and anytime via online.	4	Very valid

Table 5. *(Continued)*

No	Statement	Mean	Category
4	This WBL platform is accessible using default apps (does not require installation of other apps).	4	Very valid
5	This WBL platform maintains user privacy by providing personal account registration features.	4	Very valid
6	The process of creating an account on this WBL platform is relatively easy and simple.	4	Very valid
7	This WBL platform can be operated without requiring advanced computer skills.	4	Very valid
8	This WBL platform provides technical support for problems that might occur during the period of operation.	2	Less valid
Average		3.5	Very valid

Moreover, the experts found that the WBL platform effectively safeguarded user privacy by providing accessible and straightforward account registration features. This was supported by Statements 5 and 6, which received scores of 4 and were rated as "very valid." They also noted that the platform did not require advanced computer skills, making it a user-friendly option. This aspect was highlighted in Statement 7, which also scored 4, earning a "very valid" rating. However, the experts recommended creating a user manual or tutorial to guide users in operating the platform, even though technical support was available for assistance. This suggestion stemmed from their evaluation of Statement 8, which received a score of 2 and was rated "less valid." This suggests room for improvement to further enhance the platform's usability. Despite some areas needing attention, the technical validity of the WBL platform was rated as "very valid," with an overall mean score of 3.5. This reflects its strong potential as a reliable and user-friendly tool for web-based learning.

Practicality of Web-Based Self-Study Learning Platform to Improve Students' English Proficiency

Table 6 highlights the platform's strong performance across multiple dimensions, earning an overall "very practical" rating with a mean score of 3.35. Among the evaluated categories, usability stood out with a score of 3.44, emphasising the platform's user-friendly and efficient design. Accessibility and adaptability also performed well, with scores of 3.38 and 3.36, respectively, highlighting the platform's inclusivity and flexibility in meeting diverse user needs. The platform's feedback and assessment tools received high marks, scoring 3.44 out of 4. Technical support was closely followed, scoring 3.42, reflecting its well-developed support system. The learning environment was rated as relevant and engaging, achieving a score of 3.29, and cost-effectiveness was favourably rated at 3.34. However, integration and efficiency scored slightly lower at 3.18 and 3.26, respectively, indicating room for further improvement. Despite these areas for enhancement, the platform's overall mean rating of 3.35 affirms its effectiveness and comprehensiveness as a practical and reliable solution, demonstrating robust performance across a wide range of criteria.

Table 6. Summary of the practicality of web-based self-study learning platform

No.	Aspects of practicality	Percentage (%)				Mean	Perception category
		SA	A	D	SD		
1	Usability	51	49	0	0	3.44	Very practical
2	Accessibility	41	59	0	0	3.38	Very practical
3	Adaptability	45	54	1	0	3.36	Very practical
4	Integration	25	75	0	0	3.18	Practical
5	Efficiency	37	59	4	0	3.26	Very practical
6	Relevance	54	44	2	0	3.29	Very practical
7	Feedback and assessment	53	45	2	0	3.44	Very practical
8	Technical support	49	51	0	0	3.42	Very practical
9	Cost-effectiveness	43	56	0	0	3.34	Very practical
	Total					**3.35**	**Very practical**

Notes: SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree

Table 7 provides a detailed evaluation of the practicality of a web-based self-study learning platform, focusing on nine aspects related to students' English proficiency. Usability was a key focus, assessed through three statements that examined various aspects of the platform's design and functionality. The platform's clear and transparent layout facilitated smooth navigation, earning a solid mean score of 3.44. It was further noted for its user-friendly design, achieving an impressive score of 3.60, reflecting a high level of practicality. However, it scored slightly lower at 3.12 for effortless navigation, highlighting some challenges, particularly with answer column filtering due to inconsistencies in formatting. Students proposed a more flexible filtering system to address these issues and provide clear formatting guidelines. These improvements would enhance the platform's accuracy and overall user experience, ensuring it remains practical and effective for learners.

Table 7. Practicality of web-based self-study learning platform to improve students' English proficiency

Aspects	No	Statements	Mean	Category
Usability	1	The platform is user-friendly and can be easily accessed and used.	3.60	Very practical
	2	You can navigate the platform effortlessly without facing significant challenges or confusion.	3.12	Practical
	3	The outline look of the platform is straightforward and comfortable to be seen so that you can use and navigate the platform conveniently.	3.60	Very practical

Table 7. *(Continued)*

Aspects	No	Statements	Mean	Category
Accessibility	4	You can access the platform from multiple devices, including computers, tablets, and smartphones.	3.44	Very practical
	5	You can access the platform via different web browsers.	3.32	Very practical
Adaptability	6	The platform can accommodate a wide range of learning needs and preferences, fostering a flexible learning environment.	3.40	Very practical
	7	You can explore different learning methods and adjust your approach to suit your preferences and goals.	3.32	Very practical
Integration	8	The platform promotes a more engaging and personalised learning experience for each user.	3.08	Practical
	9	The platform is compatible with the existing educational infrastructure.	3.28	Very practical
Efficiency	10	The platform utilises effective methods to help you achieve your educational objectives.	3.20	Practical
	11	The platform provides valuable tools to enhance learning efficiency and effectiveness.	3.32	Very practical
Relevance	12	The platform offers up-to-date learning materials.	3.36	Very practical
	13	The platform provides up-to-date resources that are aligned with the learning goals.	3.36	Very practical
	14	You can benefit from relevant content that suits your needs and interests, enhancing the learning experience.	3.16	Practical
Feedback and assessment	15	The platform offers mechanisms to receive feedback on your progress and performance.	3.52	Very practical
	16	The platform offers assessment tools that enable you to monitor your learning outcomes.	3.36	Very practical
Technical support	17	The platform provides strong technical support.	3.40	Very practical
	18	Technical support is available to assist with any technical issues or challenges you may encounter.	3.44	Very practical
Cost-effectiveness	19	The platform provides value more than the cost.	3.32	Very practical
	20	The costs associated with its implementation and usage are reasonable.	3.36	Very practical

RESULTS INTERPRETATION

The platform's accessibility was evaluated based on its usability across various devices and web browsers, achieving an overall mean score of 3.38, rated as "very practical." It performed consistently well on personal computers (PCs), tablets, and smartphones, with a mean score of 3.44. It was compatible with major browsers, including Microsoft Edge, Mozilla Firefox, and Google Chrome, and received a score of 3.32. These results confirm the platform's ability to cater to a diverse range of users, including those with disabilities. Its adaptability, with a mean score of 3.36, was also rated as "very practical." Indicators assessing flexibility in exploring different learning methods and accommodating various needs scored 3.40 and 3.32, respectively, demonstrating strong support for varied learning preferences and styles.

Students accessing the platform encountered a clean, straightforward interface featuring large, intuitive icons and navigation. This simplicity reduced stress and made the platform more user-friendly. Upon selecting a chapter tab, students were presented with chapter content and could immediately begin their progress. The platform offered high-quality content that supported teaching and learning activities in the English Proficiency Course at the English Department of UNP. Additionally, its responsive design ensured compatibility with desktops, laptops, tablets, and smartphones by automatically adjusting the layout to fit different screen sizes.

The platform's flexibility and manageability allowed users to control their learning schedules and personalise their experiences, earning a practical rating of 3.08. It also integrated effectively with the existing educational infrastructure, achieving a score of 3.28 for interoperability. This seamless integration facilitated smooth incorporation into academic settings, benefiting both instructors and students. The overall integration score of 3.18 highlights the platform's ability to support learning across institutional systems. These features collectively underscore the platform's value in fostering personalised and adaptable learning experiences within established frameworks.

In terms of efficiency, the platform earned a practical score of 3.20, reflecting its ability to support timely and goal-oriented learning. Its efficient learning techniques and helpful resources were further validated by a "very practical" rating of 3.32. The overall efficiency score of 3.26 illustrates the platform's success in delivering streamlined educational experiences. These findings suggest that the platform effectively supports student progress through its accessible and time-saving tools. This combination of effectiveness and simplicity strengthens the platform's appeal to both learners and educators.

The platform also excelled in providing up-to-date and relevant learning materials. It received a "very practical" rating of 3.36 for offering content aligned with educational goals. Users appreciated how the materials reflected their needs and interests, with a practical content relevance score of 3.16. A supportive learning environment further contributed to the platform's practicality, earning an overall relevance score of 3.29. Feedback mechanisms received a strong rating of 3.52, and assessment tools scored 3.36, culminating in a "very practical" rating of 3.44. These features enabled students to track their progress, with quiz results displayed immediately after completion—an approach that enhanced motivation and clarity of understanding.

Technical support was another area of strength, as reflected in its "very practical" rating of 3.42. Accessible technical assistance received a score of 3.40, while problem resolution support scored 3.44. Students reported that receiving support via WhatsApp was especially effective in quickly addressing technical challenges. The ease of accessing help significantly contributed to the user experience, reducing frustration and encouraging continued engagement. Finally, cost-effectiveness was rated at 3.34, with scores of 3.32 for value and 3.36 for reasonable implementation. By reducing reliance on printed materials and enabling anytime, anywhere access to learning content, the platform emerged as an affordable and scalable solution for improving English language proficiency in diverse educational contexts.

These findings offer clear evidence of the platform's high level of functionality and user-centred design. However, beyond reporting mean scores and technical features, it is essential to consider how these attributes contribute to the platform's overall educational value. The following section discusses the practical implications of these results, situating them within broader pedagogical frameworks and examining their significance for enhancing accessibility, usability, and learner engagement in digital education environments.

DISCUSSION

This study evaluated the validity and practicality of a WBL platform designed for English Language Proficiency Courses at Universitas Negeri Padang. The results demonstrate that the platform meets core pedagogical, technical, and user-centred criteria, with strong support from experts and students for its effectiveness.

Validity of the Web-Based Learning Platform

The content validity of the WBL platform was affirmed through expert evaluations, confirming that it aligns with instructional standards highlighted by Simon (2015) and Bartholomew (2016). These standards emphasise that learning materials should be accurate, relevant, and up-to-date. Given the risks posed by outdated content in digital environments, the platform's adherence to these criteria enhances its instructional integrity (Ogunleye et al., 2013b; Abuhassna et al., 2020; Mayer, 2021). The high content validity scores not only suggest that the platform is pedagogically sound but also that it holds institutional value for delivering quality instruction. This alignment between theoretical standards and actual practice positions the platform as a scalable solution for modern language education.

The pedagogical structure of the platform further reinforces its validity. Although the learning process is asynchronous, instructors maintain control by monitoring progress, assessing tasks, and issuing feedback. This hybrid model, combining learner autonomy with instructional oversight, reflects the framework discussed by Graham (2006). Students can work at their own pace while engaging with structured material, facilitating the development of self-directed learning skills (Salmon, 2021; Mathieson, 2022). The platform supports repeated engagement with tasks and content, reinforcing concepts and promoting retention (Zhu et al., 2020). This pedagogical flexibility makes the platform suitable for a wide range of learning contexts and learner profiles.

In addition, the technical validity of the platform was supported by its functionality across devices and browsers, as well as its secure access system. Login authentication safeguards user data, a crucial feature in maintaining trust and ensuring legal compliance in digital learning environments. Although one area for improvement was identified in the domain of technical support, students found the availability of help via WhatsApp to be both practical and effective. These findings, supported by Azhari and Ming (2023), suggest that while minor enhancements are necessary, the overall technical design makes a positive contribution to the platform's validity and functionality.

Practicality of the Web-Based Learning Platform

The practicality of the WBL platform was demonstrated through consistently high ratings across multiple domains. Students and experts alike reported that the platform's user interface was intuitive and manageable, enabling users to engage with course content efficiently. With mean scores exceeding 3.3 in categories such as usability, relevance, and technical support, the platform aligns with Tidwell's (2005) usability principles and Clarke's (1989) learner-focused approach. These results suggest that the design successfully lowers cognitive barriers, promoting consistent learner engagement.

Accessibility emerged as another strength, with the platform functioning seamlessly across desktops, laptops, tablets, and smartphones. Compatibility with major browsers further reinforces its inclusivity. This aligns with Ahmad (2015) and Scanlon et al. (2015), who argue that digital learning systems must accommodate diverse learner contexts, including those with physical or technological limitations. The platform's responsive design and equitable access contribute to its practical value in real-world educational settings.

Adaptability was also evident in the platform's ability to support varied learning schedules, styles, and preferences. Learners could control their pace and sequence of study, an important feature given the growing emphasis on learner autonomy and differentiated instruction (Bonk & Graham, 2012; Alamri et al., 2021). This individualised control over content interaction increases the platform's relevance across a broad spectrum of learner needs.

Moreover, integration with institutional systems was smooth and functional, as reflected in high interoperability scores. Rather than operating in isolation, the platform worked in tandem with existing learning management systems and academic infrastructure. This not only reduced redundancies for instructors but also ensured a coherent learning experience for students, thereby enhancing institutional scalability and adoption potential.

Efficiency and relevance were also affirmed by user feedback. Learners appreciated the immediate feedback on assessments, streamlined navigation, and goal-oriented learning modules. These features resonate with Brown's (2004) emphasis on instructional relevance and Clarke's (1989) advocacy for outcome-driven educational design. The platform's practical strengths were complemented by robust technical support, particularly via accessible communication channels such as WhatsApp, which facilitated the timely resolution of issues and reinforced student confidence.

Finally, the platform's cost-effectiveness adds to its overall practicality. Students benefited from affordable, on-demand access to learning content without the need for physical materials. This not only reduced institutional costs but also contributed to educational equity by ensuring access for students in resource-constrained environments (Miller, 2008). These findings, validated by both empirical ratings and theoretical alignment, collectively confirm the platform's status as a reliable, user-centered educational solution.

Taken together, these results underscore the broader significance of the WBL platform in advancing digital equity, learner autonomy, and scalable educational solutions. By aligning with established pedagogical principles and achieving strong practical performance across critical dimensions, the platform demonstrates not only functional success but also theoretical relevance. It addresses key challenges in online learning, such as accessibility, motivation, and integration, by providing an adaptable and inclusive framework that supports diverse learners without placing undue demands on educators or infrastructure.

This convergence of high usability, flexibility, and educational soundness positions the platform as a model for future digital learning tools, particularly in language education, where learner needs vary widely. Moreover, the platform provides a scalable and low-cost alternative to traditional models, with the potential to improve learning outcomes in both high- and low-resource contexts. As educational institutions continue to embrace hybrid and fully online delivery formats, tools like this WBL platform will play a central role in shaping equitable and effective digital learning ecosystems. Therefore, the practical implications of this study extend beyond the case context, providing valuable insights for the design and implementation of educational technology in diverse academic environments.

CONCLUSION

Following a thorough evaluation, experts confirmed the validity of the WBL platform, highlighting its strong performance across all assessed dimensions, including content accuracy, pedagogical structure, and technical functionality. The platform demonstrated outstanding usability, accessibility, and adaptability, making it highly practical for diverse educational settings. Its intuitive interface supports ease of navigation, while compatibility with various devices and browsers ensures inclusivity for users of differing abilities and learning styles. Seamless integration with existing educational systems enhances engagement and personalisation, with features such as timely feedback, robust assessment tools, and dependable technical support reinforcing its commitment to user satisfaction. While the overall evaluation was highly positive, one area identified for improvement was the addition of a tutorial for students and lecturers to minimise user errors further and strengthen usability. Overall, the platform offers a well-rounded, affordable, and intuitive learning environment that prioritises user needs and delivers practical, scalable solutions for English Language Education.

Suggestions and Implications

To strengthen the platform's functionality and user experience, it is recommended that

the development team implement targeted technical enhancements, beginning with the addition of clear tutorial features for both students and lecturers. This improvement would help reduce user errors and further support autonomous use, particularly for first-time users or those less familiar with digital platforms. Additionally, regular updates to the platform's content and features are essential to ensure continued alignment with evolving educational goals, learner needs, and technological advancements. Expanding device compatibility and accessibility features will further promote inclusivity, especially for learners with diverse physical or cognitive abilities. The platform's success in this study also suggests broader implications for institutions seeking cost-effective and scalable solutions for language education. By supporting personalised learning, integrating with existing systems, and delivering measurable outcomes, the platform offers a model for future digital learning tools in higher education. Policymakers, instructional designers, and educators can draw on these findings to inform strategies for enhancing digital infrastructure and promoting equitable access to high-quality English language instruction.

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APPENDICES

Appendix A

Questionnaire for validity of web-based self-study learning platform to improve student English proficiency

	Content Validity				
No	**Statements**	**1**	**2**	**3**	**4**
1	This WBL platform is relevant, which means that it covers the topics contained in Interchange Workbook 1.				
2	The exercise material contained in this WBL platform is up-to-date.				
3	The exercise material contained in this WBL platform is accurate.				
4	This WBL platform includes a variety of question types.				
5	The list of answers given in the WBL platform corresponds to the question asked.				
6	There are no typos in the questions and answers in this WBL platform.				
7	The instructions given in the WBL platform are easy to understand.				
8	The instructions given in the WBL platform align with the tasks that are going to be performed.				
9	The content in this WBL platform is organized and arranged logically.				
10	The content in this WBL platform is organized and arranged coherently.				

	Pedagogical Validity				
No	**Statements**	**1**	**2**	**3**	**4**
1	This WBL platform aligns with established pedagogical principles and practices.				

No	Statements
2	This WBL platform provides teachers the ability to customize the student's access to the exercise.
3	This WBL platform facilitates communication between teachers and students.
4	This WBL platform enables teachers to monitor student performance even if they are not physically present.
5	This WBL platform helps the teachers update the exercise materials, allowing them to maintain the quality of the content to keep up with the curriculum.
6	This WBL platform enables teachers to give feedback on students' works.
7	This WBL platform helps the teachers review students' work because the assessment is carried out automatically.
8	This WBL platform enables teachers to record students' performance results.

Self-study Validity

No	Statements	1	2	3	4
1	This WBL platform provides opportunities for students to engage in the process of independent learning.				
2	This independent learning process provides flexibility for students to set their agendas to do the exercises.				
3	This independent learning process makes it easier for students because the WBL platform can be accessed anytime and anywhere as long as there is an Internet network.				
4	This WBL platform enables students to review their works.				
5	This WBL platform enables students to repeat the same exercises to remedy errors discovered in a prior attempt.				

Technical Validity

No	Statements	1	2	3	4
1	This WBL platform works well on laptops/computers.				
2	This WBL platform works well on smartphones/tablets.				
3	This WBL platform is accessible anywhere and anytime via online.				
4	This WBL platform is accessible using default apps (does not require installation of other apps).				
5	This WBL platform maintains user privacy by providing personal account registration features				
6	The process of creating an account on this WBL platform is relatively easy and simple.				

7	This WBL platform can be operated without requiring advanced computer skills.	
8	This WBL platform provides technical support for problems that might occur during the period of operation.	

Note: 4 = Strongly Agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree

Appendix B

Questionnaire for the practicality of web-based self-study learning platform to improve student English proficiency

Aspects	No	Statements	11	22	23	44
Usability	1	The platform is user-friendly and can be easily accessed and used.				
	2	You can navigate the platform effortlessly without facing significant challenges or confusion.				
	3	The outline look of the platform is straightforward and comfortable to be seen so that you can use and navigate the platform conveniently.				
Accessibility	4	You can access the platform from multiple devices, including computers, tablets, and smartphones.				
	5	You can access the platform via different web browsers.				
Adaptability	6	The platform can accommodate a wide range of learning needs and preferences, fostering a flexible learning environment.				
	7	You can explore different learning methods and adjust your approach to suit your preferences and goals.				
Integration	8	The platform promotes a more engaging and personalised learning experience for each user.				
	9	The platform is compatible with the existing educational infrastructure.				
Efficiency	10	The platform utilises effective methods to help you achieve your educational objectives.				
	11	The platform provides valuable tools to enhance learning efficiency and effectiveness.				

Relevance	12	The platform offers up-to-date learning materials.
	13	The platform provides up-to-date resources that are aligned with the learning goals.
	14	You can benefit from relevant content that suits your needs and interests, enhancing the learning experience.
Feedback and Assessment	15	The platform offers mechanisms to receive feedback on your progress and performance.
	16	The platform offers assessment tools that enable you to monitor your learning outcomes.
Technical Support	17	The platform provides strong technical support.
	18	Technical support is available to assist with technical issues or challenges.
Cost-Effectiveness	19	The platform provides value more than the cost.
	20	The costs associated with its implementation and usage are reasonable.

Note: 4 = Strongly Agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree