Field Experts’ Evaluation of a Web-based Academic Vocabulary Learning Resource for ESL Pre-university Learners

Farah Amirah Mohd Fisal
Faculty of Education
Universiti Kebangsaan Malaysia, Bangi, Malaysia
Corresponding Author: famirafisll@gmail.com

Azlina Abdul Aziz
Faculty of Education,
Universiti Kebangsaan Malaysia, Bangi, Malaysia

Nur Ehsan Mohd Said
Faculty of Education
Universiti Kebangsaan Malaysia, Bangi, Malaysia

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Abstract
Evaluating web-based learning resources during the development process before implementation with target learners is essential to ensure their efficacy. This study examines field experts’ perceptions of a web-based academic vocabulary learning resource developed by the authors for ESL pre-university learners. The main aim is to evaluate the resource’s technical, design, content, and pedagogy aspects, following Kartal and Uzun’s (2010) criteria for good language learning websites. A questionnaire survey was distributed to six field experts from various Malaysian tertiary education institutions specializing in vocabulary learning and e-learning. The quantitative data collected were analyzed descriptively using SPSS. The results indicate that the experts highly evaluated the web resource, suggesting it meets the essential criteria for a well-designed English language learning website. With the recommended improvements, the web resource has the potential to enhance academic vocabulary learning for ESL pre-university learners significantly. This study contributes valuable insights for developing and implementing effective web-based learning resources in ESL classrooms.

Keywords: English academic vocabulary, English as Secondary Language learning, web-based learning resource, website evaluation, pre-university learners

Introduction

The transition from school to postsecondary education can be challenging for Malaysian English as a Second Language (ESL) pre-university learners. An essential part of this transition is immersing into an unfamiliar language, academic English. To master this language, learners must acquire its key component, academic vocabulary (Truckenmiller et al., 2019), which refers to a set of words commonly used across academic fields and regularly appears in academic materials and discourses (Charles & Pecorari, 2016; Nation, 2022). However, the teaching and learning of academic vocabulary in Malaysian ESL classrooms remain limited (Sulaiman et al., 2018). Educators commonly expect that learners implicitly acquire academic words through independent reading. However, ESL learners are dissatisfied with this traditional approach to vocabulary learning, deeming it limiting, insufficient, and unengaging (Fisal & Said, 2023).

Fortunately, the emergence of technology has transformed language education, offering new opportunities for enhancing language learning and instructional efficacy (Raygan & Moradkhani, 2022). Following the demands of 21st-century education, there has been a worldwide shift towards widespread integration of internet-based language instruction in the classroom (Hanafiah & Aziz, 2022). In this regard, using websites for English language learning (ELL) has become increasingly popular. Numerous studies underscore the potential of websites or online resources as helpful learning aids for improving ESL learners’ academic vocabulary (e.g., Alhujaylan, 2021; Knežević et al., 2020). Online resources gained traction due to their adaptability to different learning styles, allowing self-directed language learning (Aguayo & Ramírez, 2020) and expanding learning opportunities beyond the classroom (Al-Johali, 2019).

However, despite the benefits, much work remains to be done to optimize the efficacy of websites as language instruction tools (Aguayo & Ramírez, 2020). The absence of formal editorial boards or review procedures prior to website release increases the likelihood of learners encountering unreliable content (Alhabdan, 2021). By wasting learners’ time, disseminating inaccurate information, and providing insufficient guidance, poorly designed websites thus inhibit learners from attaining their language learning goals (Shen et al., 2015; Truckenmiller et al., 2019). Without features like accurate content, user-friendliness, and ease of use, ELL websites may not draw regular users and impede autonomous language learning (Aguayo & Ramírez, 2020). Websites may not always fit learners’ needs, interests, and characteristics, resulting in learner demotivation (Sihombing, 2020). Failing to meet these needs may restrict the effectiveness of ELL websites in aiding language learning.

Hence, assessing such websites is crucial. As language learning websites’ success depends on the effective teaching methods, learning prospects, pedagogical skills, and learning styles incorporated by website designers, identifying effective and ineffective features becomes pivotal for informing the design and development process (Alhabdan, 2021). Consequently, when developers thoughtfully structure and integrate these aspects into websites or online resources, learners can better achieve their learning goals (Polizzi, 2020). In contrast, failure to adhere to the websites’ evaluation criteria may give independent users a subpar experience. Thus, incorporating feedback from a robust evaluation into website improvements can aid in the better development of websites (Sihombing, 2020). Subsequently, evaluated websites can improve the quality of language learning and better match the needs of varied learners.

Researchers have developed numerous tools to facilitate ESL learners with their language education. However, there has been less emphasis on inventions that specifically assist Malaysian ESL pre-university learners with their English academic vocabulary learning. Furthermore, while...
previous studies commonly included teachers and students in evaluating ELL websites and online resources, the valuable perspective of field experts throughout a website’s design and development stage is often overlooked. Field experts play a critical role in website evaluation by identifying potential areas for improvement (Allison et al., 2019). Thus, they must evaluate technological tools before implementation with actual users to enhance quality. This study seeks to identify the perceptions of field experts regarding one web-based academic vocabulary learning resource (WBLR) designed and developed by the authors as part of a larger developmental research project, according to stipulated evaluation criteria.

Literature Review

Criteria for Assessing Language Learning Websites and Online Resources

Developing effective language learning websites requires thorough evaluation criteria that align with learners’ needs (Hubbard, 2006; Son, 2005). Ample studies have focused on developing such criteria, drawing from literature review and data collection procedures. One of the initial evaluation frameworks for ESL websites, proposed by Nelson (1998), encompasses purpose, pedagogy, design/construction, and description/others. Kelly (2000) proposed a set of guidelines for evaluating ESL websites, emphasizing site usability, loading speed, ease of use, useful content, integrity and professionalism, user-friendliness, advanced technology, and awareness of minorities with less powerful computers and internet access. Her study concludes that a good website is usable, has what the visitors need, does not waste visitors’ time, and is not irritating. Based on these guidelines, various frameworks for evaluating language learning websites emerged.

Literature shows that among the most influential frameworks for evaluating ELL websites are those of Hubbard (2011) and Chapelle (2001). Chapelle (2001) proposed six evaluation criteria: language learning potential, learner fit, meaning focus, authenticity, positive impact, and practicality. Meanwhile, Hubbard (2011) presented three similar criteria for Computer Assisted Language Learning (CALL) software evaluation: technical preview, operational description, and learner and teacher fit. These criteria also apply to website evaluation (McMurry et al., 2016). Numerous ensuing studies have built on these frameworks to develop various models or criteria for evaluating language learning websites.

Son (2005) developed a model for evaluating language learning websites and had language teachers review nine ESL/EFL websites based on his model. His model suggests 15 criteria: “purpose, accuracy, currency, authority, loading speed, usefulness, organization, navigation, reliability, authenticity, interactivity, feedback, multimedia, communication, and integration” (Son, 2005, p. 218). His study concludes that the different score ratings of satisfaction that various criteria received did not necessarily affect the overall rating of a website. Meanwhile, Hadjerrouit (2010a) proposed a framework for evaluating WBLRs, focusing on technical and pedagogical usability. The former considers “content, page, and site design” (Hadjerrouit, 2010a, p. 58), while the latter involves “understandability, added value, goal-orientation, time, interactivity, multimedia, motivation, differentiation, flexibility, autonomy, collaboration, and media variation” (Hadjerrouit, 2010a, p. 59).

Then, Kartal and Uzun (2010) identified three characteristics of a good language learning website. The first is physical characteristics that anticipate the site outline and general structure (e.g., user-friendly design, smooth transition, no eye strain from color use, allowed the use of online dictionaries and other tools, and simple access to multimedia materials). The second is contextual characteristics that relate to the site content’s features (e.g., materials should be
appropriate for level, subject, and type of learners, are up-to-date and authentic, are in various formats and types, supported by external materials, exercises should be flexible to allow contribution of users and should provide feedback, while content should contain practice tools and exercises for various levels). The third characteristic is pedagogical characteristics that concern the elements of learning (e.g., short and comprehensible explanation and guidance on exercises and activities, informative, reinforcing, and constructive feedback, aligned with innovation in education, materials are at an appropriate level and applicable regarding needs, scope, and goal of a website). These three characteristics align with the core features of a WBLR, which is “the integration of content, technology, and pedagogy into a system that supports learning” (Hadjerrouit, 2010b, p. 117).

Next, Fuentes and Martínez's (2018) evaluation checklist includes general site information, language skills and components, educational material, multimedia use, interactivity, communication, aid tools and linguistic resources, website ergonomics, and content quality. While many studies created evaluation frameworks to evaluate general ESL websites, Khoiriyah (2020) proposed a framework for evaluating website materials specifically for listening skills. Her framework includes three main criteria: technical usability, functionality in assisting language learning, and appropriateness judgment. Her research concludes that the framework can “help teachers to review the proper website-based listening resources for their particular learners, purposes, and teaching methodology” (Khoiriyah, 2020, p. 89).

The different criteria in the literature for evaluating language learning websites share common themes and goals. The majority of these criteria were developed by adopting elements from previous studies. While there may be variations in the specific criteria employed, they overlap in many aspects, and the ultimate goal remains the same: to provide learners with user-friendly, engaging, reliable websites aligned with their linguistic demands and learning goals. As per Allison et al.’s (2019) meta-analysis, the quality of websites is an open and debatable area. Hence, the guidelines, models, tools, or frameworks mentioned can be used to gather and analyze data. They may supplement one another and be enhanced by additional criteria to help create websites that are helpful to language learners.

**Previous Studies on English Language Learning (ELL) Website Evaluation**

Most evaluations of ELL websites and online resources in previous studies were predominantly conducted by teachers or instructors, pre-service teachers, and students, using criteria described in the literature. The studies concurred that evaluation would lead developers to modify the teaching strategies and content presentation employed in a website, thereby increasing its credibility.

In a study by Saeedi et al. (2023), Teaching English as a Foreign Language (TEFL) teachers evaluated five vocabulary and grammar websites based on authority, purpose, coverage, currency, objectivity, accuracy, technical aspects, and usefulness. Despite varying technical and technological superiority among platforms, all platforms proved practical and helpful in expanding ESL learners’ vocabulary and grammar knowledge. Saeedi et al. (2023) conclude that evaluation is a time-saving tool, as learners and teachers can select websites based on specific purposes, needs, and criteria. Meanwhile, in Said's (2021) study, 18 ESL web resources were evaluated by ESL pre-service teachers based on Son’s (2005) website evaluation criteria. Results revealed that most web resources’ content and usefulness were aligned with their primary purposes, making them highly
recommended for language teaching and learning. Nonetheless, authority, feedback, multimedia, and communication received weaker ratings.

Next, Cengiz et al.’s (2021) findings showed that most ESL websites utilized by Turkish EFL teachers were of good quality, rendering them valuable resources for teaching, learning, and professional development. The evaluation criteria were membership availability, registration, authorship, up-to-date, accuracy, presentation, usefulness, and description of the website and its content. Yet, rather than offering an interactive environment, the websites only offer educational content that would satisfy teachers’ urgent needs to deliver lessons. Sihombing (2020) had English language teachers evaluate three English listening learning websites using design, content/teacher fit, and learner fit (Hubbard, 2006; Son, 2005). The evaluation indicated that, to varying degrees, the websites mostly met the standards for good language websites set forth by scholars. Still, particular suggestions were given to enhance the websites’ quality, including adding monologue, learner feedback, and better learner fit.

Some studies specifically evaluated technical aspects, like functionality and usability. Aguayo and Ramírez (2020) reviewed four well-known ELL websites: ESOL Courses, BBC, British Council, and Cambridge English. They found that learners face difficulties accessing and using these websites when they fail to meet functionality and usability standards. This finding suggests that even well-established websites possess significant flaws in design elements like technology accuracy for specific purposes, intelligibility, ease of use, operability, instruction guidance, and interactive tools. In contrast, Liu et al. (2011) examined BBC and noted its well-designed structure. Still, they acknowledged that not all learning websites are funded and developed by giant corporations and posited that fewer criteria would be met when reviewing them. Building on Aguayo and Ramírez's (2020) checklist, Alhabdan (2021) engaged Saudi EFL learners to evaluate the technical features of ELL websites. Learners found that the websites are functional and usable for increasing their English language proficiency. Essentially, these studies stressed that beyond appropriate content, technical qualities are equally crucial for ELL websites’ efficacy.

Next, in Kır and Kayak's (2013) study, English language learners evaluated English websites in terms of ease of finding information, text readability, interface, navigation, speed, interactivity, and understanding of the content. Findings showed that learners were satisfied with the websites as they helped develop their language and cultural competencies. However, compared to the mean of the speed of display, fun, entertainment value, overall learning experience, and ease of understanding the instruction, the mean of quality of information, ease of finding information, ease of reading text, website appearance, and ease of navigation received higher mean.

These evaluation studies emphasized the importance of critically evaluating web resources for language learning. Identifying the strengths and limitations of websites informs future website development and improvement of existing ones (Kır & Kayak, 2013; Saeddi et al., 2023). While feedback from the evaluation can facilitate website improvements (Alhabdan, 2021), participants can also gain valuable skills for assessing and choosing the best ESL websites that meet their needs (Said, 2021; Sihombing, 2020). Therefore, a thorough set of guidelines should be obeyed prior to website design. Subsequently, a careful evaluation would ensure that those guidelines are met and that materials are valid, efficient, and practical (Sevilla-Pavón et al., 2011).
Method
This study is a quantitative study of nature in which the researchers intend to investigate the perceptions of field experts on a designed and developed academic vocabulary WBLR in detail. It seeks to answer the following research question (RQ): How do experts perceive the developed web-based English academic vocabulary learning resource?

Participants
A total of six expert reviewers from various Malaysian tertiary education institutions were purposely selected based on their areas of expertise in the Teaching English as a Second Language (TESL) field.

Instrument
An expert evaluation questionnaire (Appendix A) is used to gather the experts’ perceptions on the developed academic vocabulary WBLR. Adapted from Kartal and Uzun (2010), there are four evaluation aspects: Design, Technical, Content, and Pedagogy, with 9, 10, 12, and 11 items, respectively. The items are adapted from Fuad (2019) and added by the researchers. The questionnaire also includes two open-ended questions on the strengths and future recommendations for the resource. Before distribution, the questionnaire was revised based on content validation feedback from two senior lecturers with expertise in CALL and English language studies.

Procedures
Each expert received an appointment letter, research information sheet, consent form, and links to the prototype of the WBLR (www.5stepacademicwords.com) and the expert evaluation questionnaire via email. The prototype also includes a comprehensive video tutorial on how to use the WBLR. Experts had two weeks to complete the evaluation, which was later analyzed using descriptive statistics on Statistical Package for Social Sciences (SPSS) Version 26. The mean interpretation is based on Wiersma (2000), where mean scores of 1.00-2.33 are considered low, 2.34-3.67 moderate, and 3.68-5.00 high.

Results
The presentation of this section begins with the findings gathered from the experts and is then discussed further. Table 1 shows the demographic profile of the experts.

Table 1. Demographic profile of the field experts

<table>
<thead>
<tr>
<th>Expert (E)</th>
<th>Post</th>
<th>Affiliation</th>
<th>Year of experience</th>
<th>Area of expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Associate Professor</td>
<td>UiTM Perlis</td>
<td>32</td>
<td>TESL, vocabulary learning, learner autonomy</td>
</tr>
<tr>
<td>E2</td>
<td>Senior Lecturer</td>
<td>UPSI</td>
<td>12</td>
<td>TESL/TESOL, vocabulary learning</td>
</tr>
<tr>
<td>E3</td>
<td>Senior Lecturer</td>
<td>UM</td>
<td>8</td>
<td>TESL, language education, tertiary education</td>
</tr>
<tr>
<td>E4</td>
<td>Associate Professor</td>
<td>UiTM Puncak Alam</td>
<td>34</td>
<td>TESL, CALL, technology in language learning and teaching, instructional technology</td>
</tr>
<tr>
<td>E5</td>
<td>Senior Lecturer</td>
<td>UTHM</td>
<td>16</td>
<td>TESL, technology in education, ESL instructional design</td>
</tr>
</tbody>
</table>
As seen in Table 1, 66.7% (n=4) of the experts are Associate Professors, while the remaining 33.3% (n=2) are Senior Lecturers. Affiliated with various public universities in Malaysia, they have work experience ranging from five to 34 years (M=18). Only 33% (n=2) have less than ten years of experience, while 67% (n=4) have more than ten. Their TESL backgrounds demonstrate the experts’ expertise in pedagogy in education. While Experts 1, 2, and 3 are content experts (i.e., vocabulary learning), Experts 4, 5, and 6 are technology experts (i.e., CALL and instructional design). Therefore, this panel of experts consists of experienced lecturers with expertise relevant to this research, ensuring they can provide valuable insights and suggestions to improve the academic vocabulary WBLR.

**Expert Review Questionnaire Findings**

This section summarises the findings obtained from the expert review questionnaire based on the four key constructs. The report of findings of these constructs determines the field experts’ perceptions of the academic vocabulary WBLR. Table 2 presents the mean score for each construct in the questionnaire.

<table>
<thead>
<tr>
<th>Part</th>
<th>Construct</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Design</td>
<td>3.81</td>
<td>.448</td>
<td>High</td>
</tr>
<tr>
<td>B</td>
<td>Technical aspect</td>
<td>4.33</td>
<td>.489</td>
<td>High</td>
</tr>
<tr>
<td>C</td>
<td>Content</td>
<td>4.18</td>
<td>.484</td>
<td>High</td>
</tr>
<tr>
<td>D</td>
<td>Pedagogy</td>
<td>4.14</td>
<td>.262</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Overall mean score</td>
<td>4.12</td>
<td>.374</td>
<td>High</td>
</tr>
</tbody>
</table>

As seen in Table 2, the experts strongly agreed on the design elements of the web-based learning resource (M=3.81, SD=.448), including suitability for target learners, colors, texts, graphics, videos, font type, and overall design attractiveness. Nonetheless, adjustments are required to improve the readability of font size (M=1.83, SD=.408) and images used for content (M=3.67, SD=.816).

Likewise, the experts strongly agreed that the web resource contains good technical elements that could support learning (M=4.33, SD=.489). The elements include allowing easy information search and feedback submission, functioning clicking mechanisms, smooth transitions, smooth audio and video plays, easy-to-follow layout, and good organization. Nevertheless, to improve the technical aspect of the web resource, its user interface needs to be revised accordingly (M=3.50, SD=.548).

Besides, the experts also showed positive perceptions of the web resource content (M=4.18, SD=.484). They perceived the content as appropriate with the curriculum, learning objectives, learners’ proficiency, and background knowledge. They also agreed that the content includes accurate and up-to-date learning exercises, testing tools, and credible links, is free from typographical errors, and is presented through various media. However, a modification of the content is needed to eliminate spelling errors (M=1.83, SD=.408).

Finally, the experts believed the web resource encompasses essential pedagogical elements that can facilitate effective learning (M=4.12, SD=.262). These elements include appropriately tailored exercises for diverse proficiency levels, comprehensive guidance, materials that provide sufficient stimulus and reflect the scope and goals of the resource, interesting content conducive
Field Experts’ Evaluation of a Web-based Academic Vocabulary Learning

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To independent learning, clear information, direct instruction, instant feedback, and integration of up-to-date technology for materials.

The findings show that field experts’ overall perceptions of the WBLR developed for academic vocabulary learning among ESL pre-university learners are high (M=4.12, SD=.374). This indicates that the WBLR is well-designed and contains critical elements to facilitate effective learning. The experts also highlighted areas requiring modification before implementation with target users. Additionally, they shared personal opinions on the main strengths of the web resource and offered recommendations for future improvements in the open-ended section of the questionnaire. Table 3 summarises their responses.

Table 3. Experts’ responses on web resource’s strengths and recommendations

<table>
<thead>
<tr>
<th>Expert</th>
<th>Strengths</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| E1     | • "Self-paced learning allows flexibility."
        | • "Extremely beneficial for students and is a laudable effort."
        | • "Reduce the amount of text in the introductory section and answer options."
        | • "Keep instructions simple, succinct and clear."
        | • "Content needs to be proofread by a competent language expert."
        | • "Increase font size." |
| E2     | • "The use of audio-visual materials."
        | • "Well-developed and authentic materials."
        | • "Gamification."
        | • "Input uses local context to convey information which aids learners’ comprehension."
        | • "Subtle color scheme."
        | • "Font size must be improved significantly to improve readability."
        | • "Increase the audio volume to improve pronunciation clarity."
        | • "Be more interactive to promote meaningful learning." |
| E3     | • "Substantial and broad-ranging scope and content."
        | • "Engaging visuals."
        | • "Paves the way for innovative pedagogical methods for teaching academic vocabulary."
        | • "Encourages active learning."
        | • "Appropriate tool to help students learn academic vocabulary independently."
        | • "Quick feedback is valuable for self-assessments."
        | • "Variety of fun activities."
        | • "Capacity to link resources in many formats."
        | • "Create a visual interface on academic vocabulary for higher-order functions to make the web beneficial and feasible for upper-intermediate students."
        | • "Find ways to boost user participation." |
| E4     | • "List of academic vocabulary."
        | • "Gamification."
        | • "Good website for vocabulary practice."
        | • "Some of the questions in the exercises could also include usage of the words in the academic context."
        | • "The exercises created using Word Wall do not provide guided reinforcement."
        | • "The inclusion of tutorial videos could add more value." |
| E5     | • "Content, color scheme, font, explanation given, and media."
        | • "Place interesting/catchy website messages."
        | • "Put caption in videos to grasp/retain students’ attention." |
Field Experts’ Evaluation of a Web-based Academic Vocabulary Learning Resource

**Discussion**

In this study, field experts assessed an academic vocabulary web-based learning resource (WBLR) that was designed and developed. The evaluation focused on its design, content, technical, and pedagogical aspects. The objective was to determine its strengths and weaknesses to improve its development. The results show that the four aspects within the WBLR received high ratings from the field experts, leading to a positive overall evaluation. The evaluation proves that the WBLR posits essential criteria of a good ELL website, increasing the likelihood that ESL learners will be interested and motivated to use it to learn academic vocabulary independently.

The ‘technical’ aspect, which is one of the physical attributes, is rated the highest among the four evaluation aspects. With a smooth transition and clicking mechanism, along with easy information search and organized presentation, the WBLR meets the criteria outlined by Kartal and Uzun (2020). These technical elements are vital for facilitating learning, improving accessibility, and providing a positive user experience. Nevertheless, the findings indicate that revising the user interface’s user-friendliness and audio volume is essential to improve the WBLR’s technical aspects. This finding corroborates studies by Aguayo and Ramírez (2020) and Alhabdan (2021), which conclude that learners could face difficulties accessing and using online learning content when websites lack functionality and usability standards. According to Aguayo and Ramírez (2020), even well-established ESL platforms could have significant design flaws. Thus, compared to renowned platforms, fewer criteria are expected to be met when reviewing other websites (Liu et al., 2011), such as the one examined in this study.

The second highest element rated is the ‘contextual’ attributes. Meeting the standards set, the WBLR’s content is appropriate for multiple proficiency and background levels, aligns with curriculum and learning objectives, is current, presented through various media, and includes exercises with feedback and testing tools. As a result, diverse learners could relate better to the learning content, rendering their learning experience more meaningful and applicable to real-life situations. However, there is a need to address grammar and spelling errors, enhance content accuracy, and incorporate more academic context. In Said’s (2021) study, ESL web resources evaluated are highly recommended for language learning because their content and primary objectives are well aligned. Thus, addressing the content issues raised by the experts is vital to ensure that the developed WBLR’s goal of assisting learners to become more familiar with academic vocabulary is fulfilled. The modifications will lead to a higher quality WBLR that accurately aids learning and meets academic standards.

Next is the ‘pedagogical’ attributes. The availability of materials suited to various proficiency levels, thorough guidance, clear information, direct instruction, feedback, and content consistent with current technology is per the pedagogical characteristics proposed by Kartal and Uzun (2010) set, the WBLR’s content is appropriate for multiple proficiency and background levels, aligns with curriculum and learning objectives, is current, presented through various media, and includes exercises with feedback and testing tools. As a result, diverse learners could relate better to the learning content, rendering their learning experience more meaningful and applicable to real-life situations. However, there is a need to address grammar and spelling errors, enhance content accuracy, and incorporate more academic context. In Said’s (2021) study, ESL web resources evaluated are highly recommended for language learning because their content and primary objectives are well aligned. Thus, addressing the content issues raised by the experts is vital to ensure that the developed WBLR’s goal of assisting learners to become more familiar with academic vocabulary is fulfilled. The modifications will lead to a higher quality WBLR that accurately aids learning and meets academic standards.

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Uzun (2010). As a result, learners have a more structured and effective learning environment. However, findings show that the WBLR only provides feedback in the form of correct or incorrect answers and displays the actual answer; it does not explain why an answer is correct or incorrect. Per previous studies, feedback deficiency is a common weakness of ELL websites (Said, 2021; Sihombing, 2020). Learners tend to self-regulate their learning better when they receive quality feedback. Besides, the experts also require the simplification of instructions. Long instructions may confuse learners, as evidenced in Kir and Kayak’s (2013) study. Learners need to quickly understand what is required so they do not become discouraged by task complexity.

Finally, the other physical attribute, the ‘design’ aspect, while rated lowest among the four evaluation aspects, is also rated positively by the experts. The WBLR includes well-executed design elements, such as multimedia usage, suitable color use, and simple and easy access to materials. These elements ensure learners interact with the content enjoyably and efficiently, ultimately supporting their learning. However, the experts note dissatisfaction with the font size, color, and absence of captions in the video exercises. These issues would impair accessibility, readability, and inclusivity, negatively affecting the WBLR’s usability and effectiveness. Such a view is consistent with Said’s (2021) findings, where multimedia commonly received weak ratings, prompting suggestions to improve its integration in the evaluated websites.

In addition to Kartal and Uzun’s (2010) criteria, the developed WBLR demonstrates a substantial correspondence to most criteria in related website evaluation literature (e.g., Chapelle, 2001; Fuentes & Martínez, 2018; Hubbard, 2011; Son, 2005). These criteria, extensively discussed for their influence on effective language learning, affirm the WBLR’s alignment with essential requirements for a successful language learning website. Despite identified shortcomings, the experts maintain an overall positive view of the WBLR, recognizing its potential as an online tool for academic vocabulary learning among ESL pre-university learners. This outcome echoes past studies where recognizing strengths in targeted websites led to an endorsement for expanding learners’ English language proficiency (e.g., Cengiz et al., 2021; Saeedi et al., 2023; Said, 2021).

This study emphasizes the importance of involving field experts in evaluating websites before public release. Experts possess invaluable insights drawn from their extensive expertise and theoretical knowledge, which can substantially contribute to improving web resources’ quality. Secondly, the experts’ feedback helps develop a more well-designed academic vocabulary WBLR intended in this study by highlighting targeted improvement and identifying elements with lower ratings. In addition to conforming to the standards put forth by website evaluation scholars, this study adds further value to ELL website designers seeking to develop new English vocabulary learning websites by offering perspectives from experts in the TESL field.

Nonetheless, this study has some limitations. It solely involves field experts as evaluators, limiting the diversity of perspectives. The single data collection method may also constrain the depths of insights. Finally, the evaluation criteria consist of only four aspects. Although they provide a structured assessment framework, they might only encompass some factors contributing to the WBLR’s effectiveness. Hence, future research could include more diverse samples, such as Information Technology (IT) officers, website developers, teachers, and students, and utilize other evaluation methods, like interviews and observations. Moreover, exploring other evaluation criteria from the literature could broaden the evaluation scope for a comprehensive assessment. Finally, investigating how ESL pre-university learners engage with the improved WBLR following expert evaluation could reveal practical insights.
Conclusion

This study reports the perspectives of experts in the TESL field concerning the design, technical, content, and pedagogical aspects of a self-developed academic vocabulary WBLR. With strong positive perceptions among the field experts concerning the criteria evaluated, the evaluation confirms that the WBLR complies with essential requirements for an effective language learning website. Hence, this study concludes with the WBLR’s potential utility and effectiveness for facilitating ESL pre-university learners’ academic vocabulary learning. With the recommended improvements, the modified WBLR is anticipated to captivate and engage its intended users, encouraging independent learning of academic vocabulary.

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About the Authors:
Farah Amirah Mohd Fisal is a PhD student at the Faculty of Education, UKM. She earned her B.Ed and M.Ed degrees at the University of Malaya (UM) in the field of education (Teaching English as a Second Language). ORCid ID: https://orcid.org/0000-0003-2578-780X

Azlina Abdul Aziz is a TESL lecturer at the Faculty of Education, UKM. She has an Ed.D in Teaching of English from Teachers College, Columbia University, U.S.A. Her research interests are in the Teaching and Learning of Literature and Teacher Education in TESL. She is interested in how literary texts and personal narratives may be utilized to help students to examine the social, cultural and political issues in a particular context. Email: azlinal@ukm.edu.my ORCid ID: http://orcid.org/0000-0002-7800-3688

Nur Ehsan Mohd Said is a senior lecturer at the Faculty of Education, Universiti Kebangsaan Malaysia, where he has served for 14 years. Ehsan obtained his doctorate in English Language and Linguistics from the University of Sheffield, UK. His main research interest lies in the field of ESL classroom intervention. In addition to teaching differentiation, he is interested in the investigation of language attitude as to how it affects language learning and in critical thinking as to how it can be taught successfully. He has authored and co-authored articles on English language teaching and learning and on English for specific purposes. Email: nurehsan@ukm.edu.my ORCid ID: https://orcid.org/0000-0002-2891-327X

References


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Appendices

Appendix A: Expert Review Questionnaire

Dear field experts,

I am Farah Amirah Fisal, a PhD student from the Faculty of Education, UKM. I am conducting a study to design, develop and evaluate a web-based learning resource for English academic vocabulary learning among ESL pre-university learners.

As part of the designing and developing processes, I seek your expertise to evaluate the prepared prototype. Link to the prototype: https://5stepacademicwords.com

Your responses will be used to modify and improve the prototype before actual implementation with the learners. Your responses will also be analyzed and reported in the thesis/article.

Responses are confidential and anonymous. This survey may take less than 20 minutes to complete. Please answer all questions. Thank you.

i. EVALUATOR’S PARTICULARS

Name:
Date:
Occupation:
Area(s) of expertise:
Institution:

ii. EVALUATION OF WEB-BASED LEARNING RESOURCE (WBLR)

Please rate the academic vocabulary WBLR developed based on the following scale by circling your response.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The design of the WBLR is suitable for ESL pre-university learners to learn academic vocabulary.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>2. The images used on the WBLR are suitable with the content.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The colors used on the WBLR are suitable for learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The texts used on the WBLR are consistent throughout all the pages.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. The graphics used on the WBLR are consistent throughout all the pages.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. The videos used on the WBLR are consistent throughout all the pages.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. The type of font used on the WBLR is easy to be read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. The size of font used on the WBLR is easy to be read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. The overall design of the WBLR is attractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

PART B: TECHNICAL ASPECTS

<table>
<thead>
<tr>
<th>Item</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The WBLR’s layout is easy to follow.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>2. The WBLR is well organised.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. It is easy to look for the information needed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The facility to give feedback/comments (e.g., via email) to the author functions as expected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. When clicked, the options available on the menu are displayed as expected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. When clicked, links to other websites are displayed as expected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. All the clicking and other mechanisms for browsing on the WBLR transition smoothly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. When clicked, the audios on the WBLR play smoothly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When clicked, the videos on the WBLR play smoothly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. The user interface is user-friendly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

PART C: CONTENT

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>


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1. Contents used are appropriate for curriculum in education.  
2. Contents used are appropriate with the learning objectives.  
3. Contents used are appropriate with ESL pre-university learners’ proficiency level.  
4. Contents used are appropriate with ESL pre-university learners’ background knowledge.  
5. There are no typographical errors that could cause misunderstanding.  
6. There are no spelling errors that could cause misunderstanding.  
7. Contents include vocabulary learning exercises for practices opportunities.  
8. Contents include testing tools for testing learners’ comprehension.  
9. Contents are presented through various medias.  
10. The information or content on the WBLR is accurate.  
11. The information on the WBLR is current enough for the type of information it includes.  
12. The links from the WBLR appear to be credible.  

PART D: PEDAGOGY

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The information delivered on the WBLR is easy to understand.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The vocabulary learning exercises on the WBLR are suitable for different levels of pre-university level.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. All the instructions on the WBLR are direct.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The vocabulary learning exercises are thoroughly guided.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. The vocabulary learning exercises provide instant feedback.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. The materials designed are in line with current technological tools for learning.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. The materials provide enough stimulus to promote memory retention.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. The materials reflect the scope of the WBLR.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>9. The materials reflect the goal of the WBLR.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. The WBLR is interesting to be explored as a resource for learning English academic vocabulary.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. The WBLR allows learners to learn independently in the absence of an instructor.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
</tbody>
</table>

PART E: OPEN-ENDED

1. What is the greatest strength of this web-based learning resource?

   [Blank space for response]

2. What are the improvements needed for this web-based learning resource?

   [Blank space for response]

Thank you for your time and cooperation.