Scaffolded Gamified Vocabulary Learning through ChatGPT and Quizizz Integration

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ABSTRACT

Many tertiary English as a second language (L2) learners struggle with limited vocabulary, which affects their ability to read, write, listen, and speak effectively. This paper introduces a simple yet highly accessible tool to help address this issue by combining three elements: the Oxford Word List, artificial intelligence (AI), and the Quizizz platform. The Oxford Word List serves as a guide to focus on high-frequency and useful vocabulary. AI tools are used to generate sample sentences, short stories, and exercises that help learners understand and use these words in context. These materials are then uploaded to Quizizz, where students can practise through fun, game-based quizzes that also provide immediate feedback. This approach is designed to be easy to administer for teachers and engaging for learners. While it has not been empirically tested, it is based on sound teaching principles such as repetition, context-based learning, and motivation through gamification. The paper suggests that ESL instructors can explore how this method works with students of different levels, how AI tools can support speaking practice, and how learning progress can be tracked using data. By combining a trusted word list, AI-generated content, and interactive quizzes, this approach offers a promising way to help L2 learners improve their vocabulary and overall English skills.

Keywords: Scaffolded vocabulary learning, artificial intelligence, Quizizz integration, Oxford 3000 and 5000, gamification.

INTRODUCTION

A robust vocabulary base remains the single best predictor of successful second-language reading and listening (Zhang & Zhang, 2022), yet most tertiary learners plateau well below the lexical thresholds that Nation (2006) identifies—approximately 9,000 word families for independent reading and 7 000 for comfortable listening. Even where ample classroom hours are devoted to English, learners' knowledge often remains passive and recognition-based. Productive control—being able to retrieve, combine, and tailor lexis in real-time communication—develops far more slowly (Zhong, 2018). Recent textbook audits confirm that many commercial courses recycle new words fewer than three times (Matsuoka & Hirsh, 2010), a frequency far short of the ten meaningful encounters recommended for durable retention (Webb, 2007).

Addressing this recognition-production gap requires an approach that is principled in its word selection, rich in contextualised practice, and efficient enough to fit real syllabus constraints. The present project therefore combines three complementary tools. First, the Oxford Word List (OWL) offers a corpus-derived inventory of high-utility items mapped to CEFR levels, ensuring that teaching time focuses on vocabulary with the greatest payoff for comprehension and fluency.

Second, generative artificial intelligence—in this case ChatGPT—rapidly produces varied, level-appropriate tasks that cover multiple aspects of word knowledge, from collocation to grammatical constraints. Third, the Quizizz platform delivers those tasks through game-based, spaced-retrieval cycles and returns analytics that help teachers target the right words at the right time. Together, these elements constitute a scaffolded pathway intended to move learners beyond initial exposure toward confident, accurate, and context-sensitive lexical use.

PEDAGOGICAL APPROACH

To address the persistent issue of inadequate vocabulary among L2 learners, this paper introduces a scaffolded, tech-integrated vocabulary learning approach that draws on three interrelated components: the Oxford 3000 and 5000, generative AI (ChatGPT), and the game-based assessment platform Quizizz. This model is designed to support the transition from receptive to productive vocabulary knowledge through structured exposure, active practice, and meaningful engagement.

The first layer of the approach is the Oxford 3000 and Oxford 5000 word lists, corpus-based compilations of high-frequency words commonly encountered by English learners in academic and everyday settings (Oxford University Press, 2025). It assigns CEFR levels to vocabulary items, helping educators prioritise words appropriate to their learners' proficiency levels. According to Nation (2006), coverage of high-frequency vocabulary is essential for unassisted reading and listening comprehension, with estimates suggesting that learners require 8,000–9,000 word families for reading and 6,000–7,000 for listening comprehension. The Oxford word lists serve as a starting point for vocabulary selection, ensuring that instruction targets words with the highest communicative value.

The second layer incorporates generative AI tools, particularly ChatGPT, to automate and diversify vocabulary tasks. Using targeted prompts, as shown in Figure 1, teachers can generate definitions, L1 translations, sample sentences, and usage tasks aligned to each word’s meaning, form, and function. This AI-assisted content creation supports Nation’s (2001) framework of vocabulary knowledge, which emphasises multiple aspects of knowing a word, including collocations, grammatical patterns, and constraints on use. Moreover, this process aligns with Schmitt’s (2019) call to develop pedagogical strategies that explicitly scaffold learners from receptive to productive word knowledge. By generating materials that require learners to move from recognition to recall and use, AI integration addresses the vocabulary learning continuum outlined by Zhong (2018), which highlights the importance of productive word use in meaningful contexts such as sentence writing.

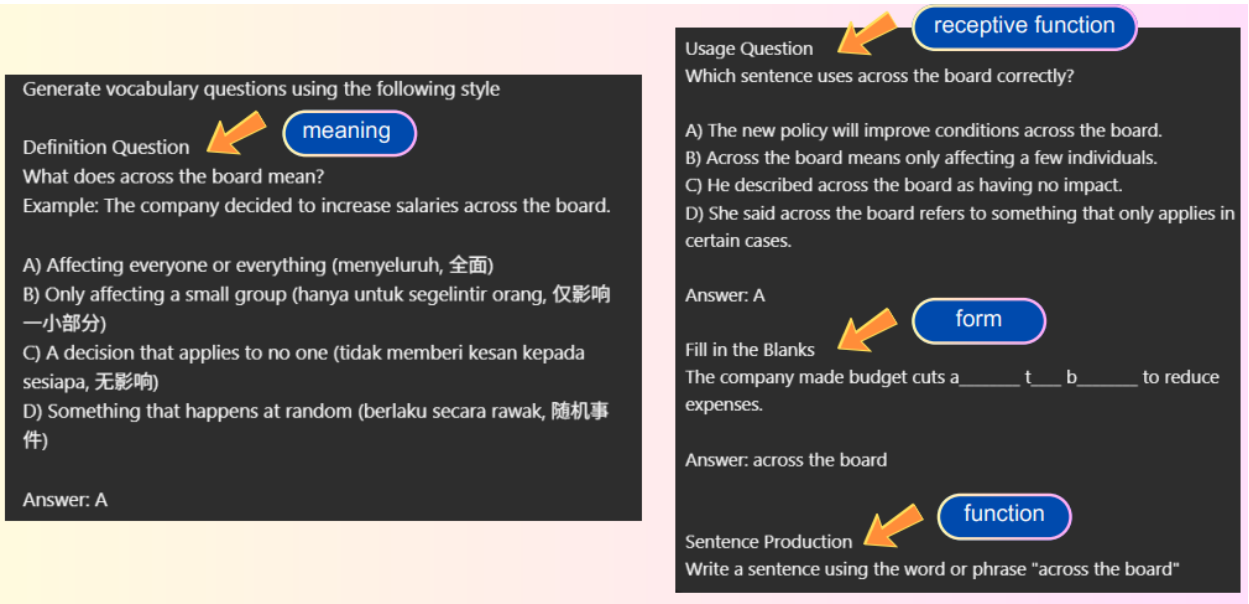

Figure 1 Prompts to generate vocabulary questions.

The third component, Quizizz, is used to deliver these AI-generated materials in an interactive and gamified environment. Quizizz allows for repeated exposure through low-stakes, game-based quizzes that reinforce learning via retrieval practice—an evidence-based strategy for enhancing long-term memory retention (Terai et al., 2021). Learners encounter vocabulary tasks such as spelling checks, definition matching with L1 translations, usage recognition, and sentence construction. These scaffolded activities mirror the progression from receptive to productive vocabulary outlined in the literature (Zhang & Zhang, 2022; Schmitt, 2019). Importantly, Quizizz provides teachers with analytics on learner performance, offering opportunities for data-informed instruction and targeted vocabulary recycling.

This tripartite model supports what Schmitt (2019) refers to as the need for vocabulary learning to be systematic, contextualised, and incremental. The approach enables teachers to spend less time on manual material preparation while ensuring that learners receive structured and meaningful practice across multiple aspects of vocabulary knowledge. It also addresses the practical gap noted by Schmitt and Schmitt (2014): while many textbooks do not systematically recycle vocabulary, this model allows teachers to easily generate and reinforce vocabulary in diverse contexts over time.

By combining corpus-based vocabulary selection, AI-powered content creation, and gamified delivery, the proposed approach offers a practical, replicable framework for enhancing L2 vocabulary learning in tertiary contexts. It not only bridges the gap between receptive and productive knowledge but also aligns with current pedagogical calls to integrate technology in ways that are both principled and learner-centered.

DISCUSSION

The integration of the Oxford Word List, generative AI (ChatGPT), and Quizizz offers a promising solution to a persistent problem in second language learning: the gap between receptive and productive vocabulary knowledge. As Schmitt (2019) notes, while learners often recognise words, the transition to confident and appropriate use in speaking and writing is much slower and more difficult. This approach supports that transition by scaffolding vocabulary learning through stages of meaning recognition, contextual usage, and productive application. By embedding activities that target multiple dimensions of word knowledge—form, meaning, function, and collocation—the approach reflects Nation's (2001) comprehensive model of vocabulary knowledge and addresses the need for learners to encounter and use words repeatedly across varied contexts.

The pedagogical significance of this approach lies in its accessibility, adaptability, and ability to promote learner engagement. Teachers can quickly generate contextualised vocabulary tasks using ChatGPT, tailored to their students' proficiency levels and lesson content. This reduces preparation time while increasing the depth and variety of vocabulary instruction. Furthermore, the use of Quizizz introduces an element of gamification, making vocabulary practice more enjoyable and less intimidating. The platform's built-in analytics also provide valuable feedback for both teachers and students, allowing for ongoing monitoring of progress and the identification of vocabulary items that require further reinforcement.

This technique is not limited to the context in which it was originally developed. It can be adapted for use with younger learners by simplifying the target words and examples, or for specific fields such as business, hospitality, or science by substituting the Oxford Word List with domain-specific vocabulary. For learners in multilingual classrooms, AI tools can generate bilingual or even trilingual support materials, making the approach more inclusive. In fully online or blended learning environments, where instructional time may be reduced, the self-paced nature of Quizizz activities and the ability to generate targeted tasks on demand provide a practical way to maintain vocabulary development outside the classroom.

The approach also encourages teacher autonomy and professional creativity. With even a basic understanding of prompt engineering, educators can produce a wide range of vocabulary tasks, from cloze activities to sentence-generation tasks, aligned to both curricular goals and learner interests. This flexibility addresses a well-known limitation in textbook-based instruction, where vocabulary activities are often disconnected from learners' actual needs and the language they are most likely to encounter and use.

However, for this approach to be implemented effectively, some support structures are necessary. Teachers need at least a working familiarity with AI tools and critical awareness of their limitations, particularly in checking for linguistic accuracy and potential biases in generated content. Institutional support in the form of shared repositories of OWL-aligned materials or sample prompts could greatly assist in ensuring consistency and reducing teacher workload. Although this approach has not yet been tested in a longitudinal study, its design reflects well-established vocabulary learning principles, including the importance of repetition, context, and meaningful use. As such, it provides a strong foundation for future empirical research on its long-term impact on vocabulary retention and productive use in written and spoken tasks.

In summary, this approach attempts to addresses real classroom challenges with practical, scalable, and learner-centred solutions. By aligning high-frequency word selection with interactive gamified practice, it not only enhances vocabulary learning but also offers a flexible model that can be adapted across educational contexts and learner profiles.

CONCLUSIONS

This paper has introduced a scaffolded vocabulary learning approach that integrates the Oxford 3000 and 5000, generative AI (ChatGPT), and the Quizizz platform to support the development of both receptive and productive vocabulary knowledge among L2 English learners. The approach responds to a critical pedagogical gap identified in vocabulary instruction—namely, the difficulty learners face in moving from passive recognition of words to confident, accurate use in speaking and writing. Leveraging digital tools that are readily accessible, this model provides a practical and adaptable framework for vocabulary instruction in tertiary ELT context.

The practical implications of this approach are substantial. For teachers, it offers a low-preparation, high-impact method for creating contextualised vocabulary tasks that are aligned with learners' proficiency levels. By using AI to generate exercises and Quizizz to deliver them in an engaging, interactive format, instructors can provide learners with repeated and varied exposure to target vocabulary in meaningful contexts. The flexibility of the model also means that it can be adapted to suit different classroom formats—face-to-face, hybrid, or online—and varied learner needs, including English for Specific Purposes (ESP), exam preparation, or general proficiency development.

For ELT practitioners considering the adoption of this technique, several recommendations emerge. First, it is important to begin with a clear understanding of learners' proficiency levels and vocabulary needs, using tools like the Oxford Word List or other corpus-based word lists to select appropriate target words. Second, educators should take time to experiment with AI prompting, learning how to generate accurate and pedagogically useful content. Simple prompts that request definitions, example sentences, and usage questions can yield rich materials that are immediately usable in class or for self-directed practice. Third, the use of Quizizz or similar platforms can enhance learner motivation and offer valuable feedback. Teachers are encouraged to gradually build a personal or institutional bank of AI-generated quizzes to support consistent recycling of key vocabulary across lessons and units.

Finally, while this approach offers clear benefits, its success depends on thoughtful implementation. Teachers should remain critically aware of the limitations of AI-generated content and be prepared to edit or adapt materials as necessary to ensure linguistic and cultural appropriacy. Collaborative sharing of best practices among educators, especially in the form of prompt templates, vocabulary sets, and instructional guides, can further enhance the effectiveness and sustainability of the approach. It should also be pointed out that while generative AI and Quizizz are great tools, errors may occur in the generation stage and instructors ought to audit the output for any potential errors prior to publishing the Quizizz.

In conclusion, this model represents a step forward in vocabulary pedagogy—one that bridges research-informed principles with practical classroom realities. As English language teaching continues to evolve in the digital age, integrating tools like ChatGPT and Quizizz in principled ways offers not just innovation for its own sake but meaningful improvement in how learners acquire, retain, and use the vocabulary they need to succeed.

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