

Ed puzzle for ESL: Enhancing Listening & Critical Thinking Through Interactive Video Learning

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ABSTRACT

This innovation, Edpuzzle for ESL: Enhancing Listening & Critical Thinking Through Interactive Video Learning, explores the strategic integration of Edpuzzle, an interactive video learning platform, to transform how ESL learners engage with English language video-based materials. Aligned with the ILEIID 2025 theme, this initiative leverages interactive technology to foster deeper learner engagement, enhance listening comprehension, and cultivate critical thinking skills for sustainable language acquisition. The curated lesson series includes comprehension analysis, vocabulary enrichment, and reflective questioning designed for both synchronous and asynchronous learning contexts. Learners' feedback from the pilot phase indicates positive engagement and improved comprehension. Supporting SDG 4: Quality Education, this project enhances access to student-centered, technology-driven content while providing commercialization potential through an institutional lesson bank, a ready-to-use ESL package for educators. Ultimately, this innovation bridges technology and pedagogy, redefining how ESL learners interact with content and connecting minds through meaningful, reflective learning experiences.

Keywords: ESL education, Interactive Video Learning, Critical Thinking Skills, Listening Comprehension)

INTRODUCTION

The rise of interactive video tools has reshaped modern language instruction, proving more effective than traditional audio or text-based methods. Video-based learning provides multimodal, authentic input that captures learners' attention and supports comprehension through visual, linguistic, and auditory channels (Lestari et al., 2023). Platforms like Edpuzzle transform passive viewing into active participation through embedded quizzes, annotations, and reflection prompts (Supriusman et al., 2023). For ESL instruction particularly in listening, these features address challenges of traditional teaching, such as limited feedback and passive delivery, by promoting self-paced, feedback-oriented, and highly engaging learning experiences (Zahara & Yulianti, 2025).

Listening comprehension is essential to language development, yet it often receives less instructional focus than reading or writing (Talapova & Asan, 2024). Studies have reported measurable gains in comprehension, motivation, and learner autonomy when using interactive video tools (Margawidjaya et al., 2024; Kholid et al., 2024). These findings affirm the pedagogical value of interactive media in developing higher-order cognitive skills like inferencing and analytical listening.

This innovation also draws from Mayer's Cognitive Theory of Multimedia Learning, which posits that combining visual and verbal input enhances comprehension while reducing cognitive overload. Edpuzzle's



design aligns with this theory by sustaining learner focus and integrating reflection and analysis into video-based tasks, thereby fostering metacognition and critical thinking (Zahara & Yuliati, 2025).

Finally, this project advances SDG 4: Quality Education by improving inclusivity and accessibility. The

flexibility of synchronous and asynchronous lesson delivery allows equitable access to quality materials, addressing the diverse needs of learners across varying proficiency levels and resource settings.

Problem Statement

Despite its importance, listening often remains the least emphasized skill in ESL classrooms (Talapova & Asan, 2024). Traditional textbook and audio-based approaches lack authentic contexts and fail to encourage analytical engagement with spoken language (Margawidjaya et al., 2024). Although previous research has highlighted improved motivation and comprehension through multimedia approaches (Lestari et al., 2023; Supriusman et al., 2023), limited attention has been given to the integration of interactive, reflective components that promote critical thinking.

Moreover, existing studies often rely on small samples and short-term interventions, overlooking how curated, scalable lesson banks can support diverse ESL classrooms (Mawaddah et al., 2022). There is also insufficient exploration of implementation challenges, such as ensuring accessibility for learners with low bandwidth or limited digital literacy. Addressing these gaps is crucial for developing sustainable, learner-centered models that enhance comprehension and higher-order thinking.

This innovation responds to these challenges by employing Edpuzzle's interactive features to design reflective, analytic, and accessible video lessons that strengthen both listening and critical thinking skills.

Objectives

This innovation seeks to:

1. Improve ESL learners' listening comprehension through interactive Edpuzzle-based lessons.
2. Cultivate independent and analytical thinking by integrating reflective tasks that promote metacognition and self-directed learning.
3. Establish an institutional *lesson bank* of curated ESL learning packages for sustainable and adaptable use across semesters.

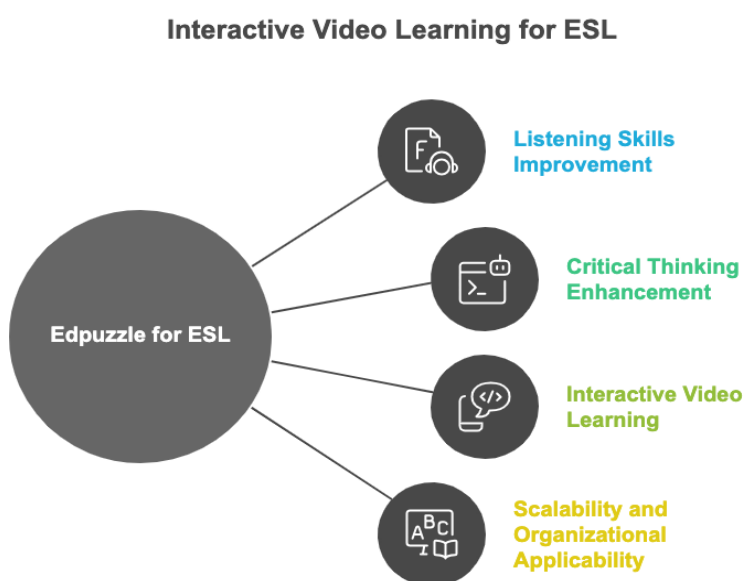
PRODUCT DESCRIPTION & METHODOLOGY

This project employs Edpuzzle's interactive video system to transform ESL learning from a passive, teacher-centered experience into an active and engaging process. Each lesson is purposefully designed to integrate comprehension questions, vocabulary reinforcement, and reflective prompts that encourage learners to think critically and listen analytically. Through this approach, students not only understand the surface meaning of the videos but also engage in deeper reflection and interpretation, fostering higher-order thinking and communicative competence. The emphasis on learner interaction and feedback ensures that the learning process is dynamic, responsive, and conducive to meaningful language development.

A pilot study was conducted with 45 undergraduate ESL learners at UiTM Kedah over a four-week period to evaluate the project's effectiveness. Participants represented a range of proficiency levels from A2 to B2 on the CEFR scale, ensuring diverse input and perspectives. The study featured three thematic lessons; Workplace Communication, Environmental Awareness, and Cultural Narratives to connect language learning with real-world contexts. Data collection combined Edpuzzle analytics (completion rates and response accuracy) with learner surveys assessing motivation and usability. Results demonstrated strong engagement, with an average completion rate of 94% and an 18% increase in post-lesson comprehension scores. Qualitative feedback revealed that learners appreciated the immediate feedback and reflective elements, which enhanced their understanding and motivation to learn.

The design process followed a design-based research (DBR) framework that emphasized iterative development and user-centered refinement. Authentic materials were curated from YouTube and reputable educational archives to ensure relevance and authenticity. Interactive elements, including multiple-choice and open-ended questions, vocabulary highlights, and reflective prompts, were embedded to sustain engagement. Lessons were piloted in the classroom to evaluate task sequencing, clarity, and technological usability, followed by a revision phase based on learner and instructor feedback. To address accessibility concerns, lessons were optimized for low-resource environments by keeping videos under ten minutes and ensuring mobile compatibility. Additionally, supplementary PDF materials containing key vocabulary and summaries were provided for offline study, making the project inclusive and practical for diverse learning settings.

Figure 1: Interactive Video Learning for ESL using EDPuzzle



Potential Findings and Commercialisation

The expected results of this innovation are increased comprehension, improved motivation, and enhanced critical thinking performance. Compared to traditional methods, authentic interactivity is expected to foster more advanced processing and critical analytical listening skills (Margawidjaya et al., 2024; Kholid et al., 2024). These improvements strengthen language mastery and promote independent learning habits.

Sustainable Solution for Lecturers and Institutions

Alongside enhancing learning outcomes, this innovation has beneficial implications for educators and educational institutions. It simultaneously addresses workload and quality instruction through student-centered, ready-made, interactive packages. This innovation ensures comprehensive, high-quality instruction while alleviating educator workload. Institutions can adopt the lesson bank as part of the curriculum, providing consistent and engaging resources across several semesters with minimal redevelopment effort.

Commercialisation Potential

This innovation's scalability makes it useful for individual teachers, schools, and even the larger educational marketplace. The stored lesson banks can later be developed into a subscription or licensed package for higher educational institutions, language schools, and private ESL providers who are looking for quality digital materials. The product can be enhanced further to improve its content and transforms it into a complete learning system that fosters and supports teaching and learning. With the need for mobile and technology-driven learning resources, this innovation emerges as a scalable solution that fulfils not only institutional needs but also international education priorities.

NOVELTY AND RECOMMENDATIONS

The novelty of Edpuzzle for ESL lies in its purposeful and strategic integration of interactive video technology to develop higher-order thinking skills rather than merely focusing on basic comprehension checks. This innovation goes beyond conventional applications of Edpuzzle by embedding reflective questioning, vocabulary enrichment, and critical listening tasks into lesson design, thus fostering analytical thinking and deeper cognitive engagement among ESL learners (Lestari et al., 2023; Supriusman et al., 2023). By shifting the emphasis from passive viewing to active participation, the project effectively combines technology with pedagogy to promote critical reflection, language mastery, and learner autonomy.

For future development, several recommendations can be made to enhance the scope and sustainability of this innovation. The lesson bank can be expanded to include writing and speaking components, providing learners with more comprehensive skill integration across language domains. Developing modules that cater to differentiated proficiency levels and subject-specific content will further increase inclusivity and relevance for diverse learner needs. Additionally, conducting longitudinal research is vital to evaluate the sustained impact of the innovation on learner autonomy, motivation, and critical thinking over time, ensuring continuous improvement and evidence-based practice.

To maintain quality and scalability, future efforts should also involve partnerships with instructional designers and subject matter experts who can refine lesson development for broader institutional adoption. Moreover, cross-disciplinary collaborations can be explored to adapt this innovation for professional communication, business English, and intercultural studies. Through such extensions, Edpuzzle for ESL has the potential to evolve into a versatile and globally applicable educational tool that bridges technology, pedagogy, and real-world communication.

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