INNOVATION IN ACTION: TURNING IDEAS INTO REALITY

Chapter 33
SmartSteps English

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ABSTRACT

The current digital era of education demands that educators proactively adapt their teaching strategies and utilise innovative tools to tailor learning experiences that address the diverse needs of pupils. However, conventional grammar instruction often presents limitations in engaging learners with diverse learning styles, with predominant passive methodologies and practices. Compounding this issue is the limited availability of centralised, readily accessible, high-quality learning resources that align with the Standards-Based English Language curriculum (SBELC), further hindering effective grammar acquisition in primary education. To address these gaps, SmartSteps English was developed as a dynamic, digitalised platform that spearheads both teacher and learner-centred pedagogies. Aligned with the SBELC, this platform delivers interactive modules and structured lessons that are accessible and engaging. This pioneering digital platform further distinguishes itself through interactive exercises designed to foster active engagement and incorporates gamified elements that have been empirically demonstrated to enhance pupils' motivation. Additionally, SmartSteps English prioritises 21st-century learning through contextualised activities and collaborative tasks that extend beyond the traditional classroom environment, making it a strategic flipped-classroom tool. The efficacy of SmartSteps English was empirically evaluated through a pre-test and post-test study conducted with a sample of Year 4 respondents (N=25). The results indicated that 100% of respondents successfully achieved the specified learning objectives, with statistically significant improvement in grammar mastery observed post-observation. The findings strongly conclude that SmartSteps English is a robust, promising solution for the demands of 21st-century education.

Keywords: SmartSteps English, grammar instruction, digital learning platform, Standards-Based English Language Curriculum (SBELC), 21st-century learning

1. INTRODUCTION

The rapid advancement of digital technologies demands a transformative shift in educational practices, yet primary ESL grammar teaching in Malaysia still relies on outdated pedagogical practices, especially passive drilling techniques that fail to engage pupils (Ash'ari et al., 2024). This incongruence is further exacerbated by the lack of centralised, high-quality grammar

learning resources tailored to pupils' diverse needs (Wulandari et al., 2022). As a strategic response, SmartSteps English emerges as a groundbreaking digital platform that champions both teacher-centered and learner-centered pedagogies. Aligned with the Standards-Based English Language Curriculum (SBELC), SmartSteps English distinguishes itself through interactive exercises and structured lessons alongside gamified elements proven to enhance pupils' overall learning experience (Hwang et al., 2022). As a strategic flipped-classroom tool, SmartSteps English positions itself as a foundational pillar in transforming primary ESL education in Malaysia.

2. LITERATURE REVIEW

The global educational landscape has undergone a monumental shift in recent years, which has forced an urgent embrace of digital learning and literacy amongst pupils and teachers. Tandemly, the Malaysian Digital Education Policy (DEP) 2023 was launched, articulating a clear vision to harness digital tools and resources to elevate the learning quality and accessibility of education for Malaysian students (The Star, 2023). This advancement has compelled teachers to revolutionise their teaching practices and leverage innovative tools to maximise 21st-century learning, tailored to pupils' learning needs and preferences (Nordin & Alias, 2023, as cited in Jayasilan & Kandasamy, 2025).

Despite these notable advancements, current pedagogical practices in this niche are still largely dominated by passive, rote drilling techniques (Chun & Sathappan, 2022). Additionally, there exists a lack of interactive and stimulating learning tools that are adaptable and tailored to cater diverse learning needs of primary Malaysian ESL pupils (Wulandari et al., 2022). Adding to these pedagogical limitations is the scarcity of centralised, high-quality grammar resources that align with the SBELC (Ong & Tajuddin, 2021). Failing to provide such resources risks undermining the broader goals of 21st-century learning (Kaur et al., 2023) and poses a significant impediment to Malaysia's ambitious quest to achieve Sustainable Development Goal 4 (SDG 4), which advocates for the provision of inclusive and equitable quality education (UNESCO, 2025).

In tandem with stated challenges, SmartSteps English emerges as an innovative digital platform that advocates both teacher and learner-centered pedagogies to enhance grammar learning. Aligned with the SBELC, it delivers structured lessons while featuring gamified interactive exercises that elevate pupils' overall learning experiences (Idris et al., 2020). This feature has been strategically added in response to significant improvements demonstrated through gamified tools like Quizziz and Kahoot! (Jayasilan & Kandasamy, 2025). On a broader scale, global trends also support this direction, with pupil respondents in Indonesia expressing specific interest in interactive grammar exercises (Permatasari et al., 2024). Ultimately, SmartSteps English represents an innovative approach that establishes itself as a novel benchmark for efficacious, stimulating, and future-oriented grammar learning.

3. METHODOLOGY

To evaluate the efficacy of SmartSteps English, a pre-test post-test was conducted involving Year 4 pupil-respondents (N=25). Respondents' initial grammar competence was assessed via a pre-test instrument, followed by the intervention featuring modules, gamified exercises and contextualised activities focused on regular verbs. An identical post-test was later

administered. The results of these findings were quantitatively analysed and subsequently presented in the form of clustered bar graphs.

4. RESULTS AND DISCUSSION

Figure 1 presents a comparative overview of pre-test and post-test scores. Pre-test results demonstrated that a large fraction of respondents (56%, n=14) failed to score any marks, indicating a significant deficiency in grammar mastery. This finding supports a study by Amir (2021), who noted that most Malaysian primary ESL learners struggle with grammar. Additionally, merely 20% (n=5) secured scores exceeding 80%, illustrating that only a few pupils had attained a strong command of grammatical rules prior to the intervention.
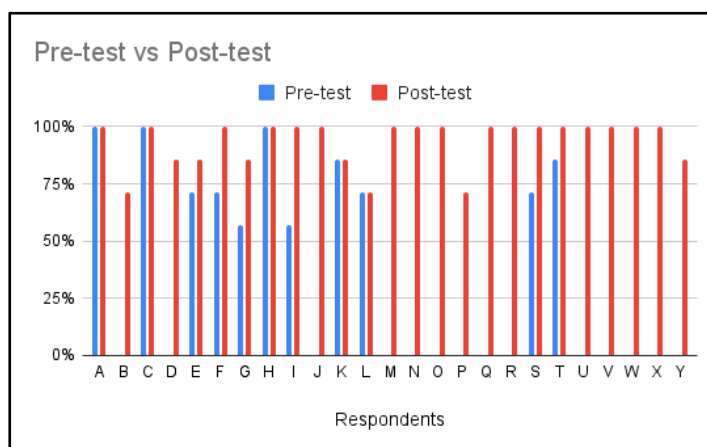

Figure 1: Pre-test vs Post-test Results

Post-test data indicated a remarkable improvement across all respondents, with 68% (n=17) of pupils obtaining perfect scores of 100%, while the remaining 32% (n=8) recording scores of 70% and above. This indicates a strong conceptual understanding of grammar following the strategic integration of gamified tasks and interactive content aimed at increasing pupils' motivation and reinforcing grammatical comprehension. As it is, Ambikapathy et al. (2024) posited that digital gamification approaches heightened both participant engagement and knowledge retention among Malaysian primary ESL pupils.

However, the most significant finding is the complete absence of respondents in the lower result attainment bracket post-intervention. This trajectory implies that the intervention has significantly benefited pupils' grammatical acquisition and learning, whilst providing effective support for pupils with lower grammar comprehension. This aligns with Bharathi's (2023) findings advocating for digital tools to cater to the diverse requirements of ESL learners and mitigate performance disparities within the classroom. As such, the results affirm that SmartSteps English successfully bridges and promotes equitable progress in pupils' learning.

The findings highlight SmartSteps English as a formidable and transformative digital tool for the enhancement of grammar instruction in Malaysian primary schools. Its ability to elevate overall pupil performance establishes SmartSteps English as an indispensable

resource in sustaining curricular relevance in Malaysian 21st-century primary ESL classrooms.

5. CONCLUSION & RECOMMENDATION

In addressing the persistent challenges within Malaysian ESL grammar practices, SmartSteps English has emerged as a strategic and innovative solution. Aligned with the SBELC, its interactive and accessible framework fosters inclusivity and engagement, positioning itself as an invaluable digital resource for teachers and learners in 21st-century classrooms.

Moving forward, SmartSteps English will be expanded to cover grammatical components across primary year levels. This is to ensure equitable accessibility for all teachers and pupils to curriculum-aligned resources. It enables teachers to deliver tailored instructions, accommodating diverse learning needs, and encourages consistent grammar advancement throughout the primary school years.

Furthermore, recognising that education transcends beyond classrooms, future expansion of SmartSteps English includes actively integrating parental involvement. By offering accessible onboarding materials, regular pupils' progress updates, and a dedicated "Parent Corner" featuring tips and simplified grammar guides, SmartSteps English aims to cultivate a linguistically supportive home environment that reinforces and extends pupils' language learning beyond conventional practices.

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