EVALUATING SPEAKBOX'S IMPACT ON STUDENT MOTIVATION AND PARTICIPATION

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Abstrak
This integration of technology in education has revolutionized traditional learning This study examines the implementation of SpeakBox, an English learning innovation that applies a subscription-based delivery system. Positioned as an affordable alternative to traditional English courses, SpeakBox delivers monthly thematic kits containing role-play materials, games, and QR-code-linked digital resources. Through a case study conducted in Gunung Pegat, the study analyzes its learning design, business structure, and market responsiveness. The results show that SpeakBox enhances learner participation through gamified, experiential strategies rooted in situated learning theory. Furthermore, its scalable, tiered pricing model makes it adaptable for individual, family, or classroom settings, showcasing a sustainable approach to educational entrepreneurship.

1. Introduction

The rapid advancement of technology has influenced many areas of life. In education learning is no longer conventional methods such as from textbooks and explanations from teachers, but also with effective and efficient learning methods by utilizing computer technology. Many learners, whether in school or other learning environments, often struggle with content that demands both understanding and good memory retention (Sari, 2018). The current people lived era of globalization technology development Learn with technology has become indispensable in modern times school has become a fundamental component (Fakhrurriana et al., 2024). An innovate and motivate learners is by using appropriate media tools to support of learning materials. Learning media are learning resources that can help teachers enrich students' idea. The variety in media used ensures students are exposed to different sources of knowledge (Ediyani et al., 2020). Teaching strategies are educational techniques that are utilized throughout the teaching-learning process as a means of planning or teachers' actions that are designed to accomplish the purpose or objectives of the content delivered (Fatimah & Santiana, 2017). Teaching strategy is a structured framework that outlines systematic steps for organizing learning experiences to meet educational objectives and assist teachers in designing and implementing instructional activities (Rohmi & Wahyuni, 2024).

E-learning has fundamentally transformed the delivery of information, particularly for the younger gener ations (Aristovnik et al., 2023). It serves as a powerful tool for educators, helping them to develop new skills, bring creative teaching method into their into their lesson, and improve both collaborative learning and social interaction. Additionally, e-learning plays a pivotal role in leveling the educational playing field by providing students in both urban and rural areas with equal access to quality education (Amutha, 2020). The rise of the e-learning industry in the 1990s coincided with the rapid evolution of computer hardware, software applications, and internet accessibility. Today, online learning, enriched by a variety of technological tools, not only facilitates instructor-student interaction and course management but also significantly enhances students' research capabilities (Oyarzun & Martin, 2023).

Learning resources in digital classroom are usually more up-to-date, because they are regularly updated through research findings, software improvements, and technological innovations. Most

digital class tools give room for feedback from students, which helps teachers recognize and address specific learning needs. The teacher should be already have a suitable method for it; provide the media, teaching technique, and strategy. Online language teaching has already gained popularity, whichis influenced by the advancement of technological tools in communication (Jansem, 2021). Students can access study materials anytime and anywhere through online learning platforms, overcoming traditional space and time constraints. Online learning allows students to hone their digital skills, an essential asset in today's professional environment. Online learning provides students with access to a wide range of educational materials. Through the use of videos, interactive content, and online assessments, learners can select the methods that align best with their individual learning preferences.

Many learners seek to leverage technology as a means to enhance students' self-directed learning. Research has consistently shown that incorporating audio-visual resources, such as videos, can make language learning more engaging and effective. These materials not only add flexibility to the learning process but also support the development of communicative abilities, listening comprehension, and vocabulary growth (Toleuzhan et al., 2023). Educational media designed in alignment with the Cognitive Theory of Multimedia Learning are generally more engaging, memorable, and effective in conveying complex concepts and processes than purely text- or image-based formats. According to this theory, combining verbal and visual elements in multimedia content promotes active learning (Suci et al., 2024).

One easiest way to increase the enthusiasm of teacher-centered learning is by making teaching material interesting (Suci et al., 2024). Within Subscription Learning Models features are provided to help educators develop more engaging and effective teaching resources. The teachers need to employ teaching tools that simplify learning. Furthermore, these tools should offer enjoyable learning experiences to enhance students' active participation and enthusiasm (Siregar et al., 2021).

2. Metode

This study employed a qualitative descriptive case study approach. As highlighted by (John W. Cresswell, 2009), qualitative research involves examining text or images to elucidate the key aspects of the subject matter being investigated, contrasting with reliance on statistical methods. to explore middle school students' engagement with SpeakBox, allowing for an in-depth understanding of learners' experiences of using Speakbox in middle school students of Gunung Pegat.

2.1. Theoritical Framework

This research is mostly followed Self-Determination Theory (Ryan & Deci, 2000), a well-established framework that argues individuals learn most effectively when three essential psychological needs are satisfied. emphasizing that peoples should obtain the satisfaction of three basic psychological needs: autonomy, competence, and sense of connection in the learning process. Furthermore, SDT also proposes a continuum of motivation internalization. Xia et al. (2022) pointed out that teachers can effectively motivate students to participate in learning by meeting their psychological needs. In this process, students increasingly internalize external goals as part of their own values, and then the meaning of the activity itself drives learning behavior. This intrinsic motivation can not only maintain students' personal growth and well-being, but also has the potential to improve learning outcomes. Therefore, if the teaching design can fully meet the three basic psychological needs of students, regardless of their initial motivation, it is more likely to be transformed into intrinsically driven learning motivation.

Self-determination theory also offers strong support for game-based learning. According to Chiu (2022), gamified teaching strategies can effectively address students' needs for autonomy, competence, and relatedness through interactive features and feedback, which in turn enhance intrinsic motivation and promote active, sustained learning. Therefore, educational games should be intentionally designed to meet these psychological needs to improve student motivation and participation.

2.2. Participants

A purposive sampling method was used to select the students and an instructor for this study. The main criterion for the instructor was teaching and academic experience in computer education.

Therefore, the selected participant teacher was a English Teacher with a decent 2 years of experience in teaching English.

The mainselection criteria for the participants students were that they were at the same middle school, had internet access, were familiar with basic understanding of using technology. The sampling process for the learners started by reaching out to a group of 40 students through Google Forms to explain the purpose of the study and send the course announcement. Thirty students agreed to join the research and participated in this study.

2.3. Data Collection Methods

A pragmatic approach was used to decide which data would be gathered and gain a comprehensive understanding of how middle school students engage with the SpeakBox program. Data were gathered in the course of two weeks, from 9th to 21st of June 2025. One of the ways to bring credibility to this qualitative study is through observation and questionnaires. The data were collected from the two methods are class observation before and during learning with Speakbox, then a questionnaire after learning with Speakbox.

3. Results and Discussion

This chapter presents findings and discussion on how middle-school students engaged with SpeakBox, Two major themes emerged in the analysis: (a) behavioral engagement; (b) cognitive and affective engagement. The results are organized thematically to reflect three core engagement domains: behavioral, cognitive, and emotional. These are interpreted through the lens of Self-Determination Theory (SDT) (Ryan & Deci, 2000), which asserts that learners thrive when their needs for autonomy, competence, and relatedness are satisfied.

3.1. Behavioral Engagement: Active Participation and Time-on-Task

Throughout the 4 observed sessions, students spent an average of 68% of instructional time actively engaged with SpeakBox components—interacting with role-play props, rotating between activity stations, and using their mobile devices to scan QR codes that provided task prompts and language scaffolds. Behavioral engagement was particularly strong during group-based tasks, such as the "Restaurant Roleplay" and "Job Interview Simulation". High voluntary participation was noted: 26 out of 30 students (87%) initiated a speaking or role-playing turn without prompting. Group configurations influenced time-on-task: activities in triads or quartets resulted in longer sustained participation (M = 15.2 minutes) than those done in pairs (M = 9.8 minutes).

This confirms findings by (Alsadoon et al., 2022), who found that gamified e-learning significantly increases behavioral engagement, especially when interactive elements are embedded within the learning platform. (Sartori et al., 2024) also found that physical-digital (phygital) storytelling projects led to increased classroom involvement and extended student participation among middle school learners with diverse needs. Field Note Excerpt:

> "Students appeared highly motivated to continue when trying the HR/Employer role-some even asked to extend the timer for another round. The classroom remained lively, with minimal need for redirection."

3.2. Cognitive and Affective Engagement: Intrinsic Motivation Inventory

Students are asked a 28-item Intrinsic Motivation Inventory (IMI) (Ryan et al., 1983), grouping items into six subscales aligned with Self-Determination Theory needs. Students rated each on a 5-point scale (1 = strongly disagree to 5 = strongly agree) yielding the following averages (Table 1).

Table 1. Average Scores of Intrinsic Motivation Inventory (IMI) Subscales

IMI Subscale	No. Items	Mean (SD)
Interest/Enjoyment	7	4.2 (0.5)
Perceived Competence	5	4.0 (0.6)
Effort/Importance	4	4.1 (0.7)
Perceived Choice	4	3.9 (0.8)
Value/Usefulness	4	4.1 (0.6)
Relatedness	4	4.3 (0.5)

These scores shows that students reported high levels of intrinsic motivation across all dimensions, with Relatedness (M = 4.3) and Interest/Enjoyment (M = 4.2) scoring highest. Perceived Choice, while still positive (M = 3.9), was marginally lower than other subscales, reflecting our observation that about 30% of transitions between activities required teacher prompts. Competence, Effort, and Value all averaged above 4.0, indicating that students felt capable, invested effort, and found SpeakBox useful for their English learning.

These Students' IMI scores (Interest/Enjoyment M = 4.2; Relatedness M = 4.3) indicate that SpeakBox's gamified, group-based activities effectively tapped intrinsic motivation and peer connection, mirroring high voluntary role-play rates (87%) observed in the "Restaurant" unit and reflecting similar findings on emotional engagement in tech-enhanced settings (Hu & Xiao, 2025). Competence (M = 4.0) and Effort (M = 4.1) scores further show that QR-code scaffolds and clear instructions supported students' sense of mastery and willingness to invest energy (Bai et al., 2022).

Perceived Choice was slightly lower (M = 3.9), which aligns with our observation that roughly 30% of station transitions required teacher prompts, suggesting that while students feel some autonomy, more explicit choice mechanisms (e.g., student-driven rotation cards) could strengthen this need (Zhao et al., 2025). Moving forward, enhancing autonomy supports and maintaining strong competence scaffolds will be key to sustaining high engagement and ensuring long-term uptake of subscription-based kits like SpeakBox.

3.3. Situated Learning and the Impact of "Phygital" Design

Integrating digital tools with tangible resources, such as props and physical guides, fosters immersive and authentic learning experiences. This approach aligns with the principles of situated learning, in which language use is embedded in contextually relevant and socially meaningful activities. Consistent with these ideas, Sartori et al. (2024) reported that middle-school students benefited from "phygital storytelling," a method that combines physical and digital interaction to enhance both cognitive and social engagement.

The SpeakBox "Job Interview" scenario, where students enacted HR-employer dialogues, mimicked real-life exchanges, allowing students to apply classroom vocabulary in practical ways. These types of scenarios help transform abstract grammar lessons into experiential learning opportunities, which Chen and Tu (2021) suggest increases both achievement and enjoyment.

3.4. Tech-Enhanced vs. Traditional Learning

SpeakBox provided more engagement than standard textbook-based lessons typically do, especially among students who previously showed limited participation. This echoes findings from Alsadoon et al. (2022), who observed that gamified e-learning tools notably improved both motivation and satisfaction, even if learning outcomes remained comparable. Moreover, Chen and Tu (2021) reported that students overwhelmingly preferred game-based formats and performed better than their peers in conventional settings.

Nevertheless, some caution is needed: as Putri et al. (2021) found, when digital tools are not supported by structured instructions or consistent teacher facilitation, engagement may wane due to confusion or hesitation. SpeakBox may benefit from clearer role cards and task timers to reinforce autonomy and flow.

4. Conclusion

Based on the findings and analysis of the implementation of SpeakBox as a subscription-based English learning medium, it can be concluded that SpeakBox effectively enhanced engagement among middle school students in Gunung Pegat, particularly in behavioral aspects, with students spending an average of 68% of instructional time on interactive activities such as role-plays, activity stations, and QR-code scanning, and 87% voluntarily initiating speaking turns without prompting. In cognitive and affective dimensions, Likert-scale questionnaires indicated increased focus, enjoyment, and emotional connection, while task choice mechanisms and digital feedback reinforced autonomy and competence, consistent with Self-Determination Theory, and open-ended responses revealed greater enjoyment, confidence, and occasional challenges when facing linguistic uncertainty. The "phygital" design, blending physical materials with digital resources, provided authentic, situated learning

experiences, such as mock job interviews, that integrated experiential and academic elements; however, improvements in instructions, role cards, and time-management cues are recommended to maintain flow and reduce confusion. With its scalable tiered pricing model and gamified approach, SpeakBox presents a sustainable alternative for English learning adaptable to individuals, families, and classrooms, offering promising opportunities for educational technology entrepreneurship focused on student engagement and business viability.

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