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STUDENT PERCEPTIONS AND ENGAGEMENT WITH INTERACTIVE DIGITAL MEDIA IN ENGLISH LANGUAGE LEARNING: A STUDY IN INDONESIAN JUNIOR HIGH SCHOOLS

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ABSTRACT

The integration of interactive digital media in English as a Foreign Language (EFL) classrooms has gained increasing attention as educators seek to enhance student engagement and autonomy. However, limited studies have investigated how students in developing countries perceive and respond to such digital interventions. This study aims to explore the perceptions and engagement of Indonesian junior high school students toward the use of interactive digital media in English language learning. A quantitative descriptive research design was employed, involving 180 eighth-grade students from six junior high schools in Jakarta. Data were collected through a structured questionnaire using a four-point Likert scale, comprising 30 items categorized into perceptions, speaking-related impact, and challenges. The instrument was developed based on validated indicators and administered via online and in-person formats. The results revealed that most students viewed digital media positively, especially in terms of its visual appeal, accessibility, and flexibility in supporting their learning styles. Many students reported that the use of digital tools enhanced their participation, motivation, and interest in learning English. However, challenges such as unstable internet access, limited device availability, and difficulty maintaining focus were also noted. The findings suggest that while interactive digital media can foster greater engagement in EFL classrooms, its effectiveness is highly dependent on technological infrastructure and teacher support. This study provides practical insights for educators and policymakers in designing learner-centered, technology-integrated language instruction in secondary education.

Keywords: Student perceptions; interactive digital media; learner engagement; English as a Foreign Language (EFL); junior high school; technology in education

Introduction

The widespread integration of digital technology into education has transformed how learning is designed, delivered, and experienced. In particular, the use of interactive digital media has become a central component of contemporary classroom practices, especially in

the teaching of English as a Foreign Language (EFL) [1]. In Indonesia, where English is taught as a compulsory subject from junior secondary levels, the demand for engaging, learner-centered instruction has grown significantly alongside the increasing accessibility of digital devices among students [2]. However, despite policy-driven encouragement for digitalization in education, many classrooms continue to rely on conventional, teacher-centered approaches that limit student autonomy and participation [3].

The COVID-19 pandemic accelerated the shift toward digital learning, revealing both the potential and limitations of technology in supporting language acquisition. During remote instruction, many Indonesian students became more familiar with digital tools—such as video lessons, mobile apps, and interactive platforms—which often served as their primary means of accessing English materials [4]. Although this digital exposure expanded quickly, questions remain about how students perceive the educational value of these tools, and whether such technologies genuinely promote deeper learning engagement. While teachers and policymakers increasingly advocate for technology-integrated instruction, students' voices—especially regarding their day-to-day experiences with digital media in language classrooms—are rarely prioritized in empirical research [5].

Numerous international studies have shown that interactive digital media can improve motivation, personalize learning experiences, and foster more active participation in EFL contexts [6]. For instance, multimedia tools have been associated with improved listening comprehension, vocabulary acquisition, and oral fluency [7]. Yet, these benefits are often dependent on how technology is implemented, whether it aligns with learners' preferences, and the availability of supportive infrastructure [8]. In many developing-country contexts, including Indonesia, inconsistencies in internet access, lack of digital literacy, and insufficient pedagogical adaptation remain critical barriers to successful implementation [9].

At the junior high school level, students are at a formative stage in their cognitive and affective development. Their perceptions toward instructional media can significantly influence how they engage with content, especially in a foreign language [10]. Understanding how students view interactive digital media—and how it affects their level of involvement in the learning process—is crucial for developing effective and inclusive language instruction. Unfortunately, most existing research on technology-enhanced EFL instruction in Indonesia tends to focus on teacher readiness, curriculum design, or general effectiveness, rather than the experiential dimension from the learner's perspective [11].

This study seeks to address that gap by investigating Indonesian junior high school students' perceptions and engagement with interactive digital media in English language learning. The research focuses not only on students' attitudes but also on the conditions that support or hinder meaningful engagement with digital content. By centering the student experience, this study aims to contribute to a more nuanced understanding of how technology can be better aligned with the needs, preferences, and realities of EFL learners in a developing educational context.

Literature Review

Student perception plays a vital role in determining the success of any instructional approach, especially in second or foreign language learning. Perception refers to the way learners interpret, evaluate, and respond to teaching strategies and materials, which can significantly affect their motivation and engagement [12]. In the context of EFL classrooms, positive student perception toward learning media has been linked to increased participation,

willingness to communicate, and self-confidence [13]. According to Dörnyei's theory of L2 motivation, learners are more likely to engage when they feel that the instructional materials are relevant, stimulating, and supportive of their learning goals [14].

Research also shows that students' acceptance of learning technology depends on how intuitive, accessible, and enjoyable the media are perceived to be [15]. This perspective is supported by the Technology Acceptance Model (TAM), which identifies perceived usefulness and perceived ease of use as key predictors of technology adoption in educational settings [16]. In EFL classrooms, where language anxiety may be high, media that are perceived as low-pressure and flexible can positively shape students' emotional responses to learning. Engagement in language learning involves cognitive, behavioral, and emotional dimensions, all of which can be influenced by the nature of instructional media [17]. Digital tools that incorporate visual, auditory, and interactive elements have been found to increase cognitive load in constructive ways, fostering deeper understanding and attention [18]. According to the Cognitive-Affective Theory of Learning with Media, when learners are emotionally engaged through well-designed digital experiences, their retention and transfer of knowledge improve significantly [19].

Several studies have highlighted the role of digital media in enhancing learner engagement, particularly in foreign language contexts where multimodal exposure is essential. A study by Aghaei et al. found that Sgnment with students' preferences [21]. Interactive digital media refers to tools that allow users to actively participate in their learning through engagement with visual, audio, and kinesthetic elements. In EFL settings, this includes apps, videos, language games, and digital storytelling platforms. These tools have been associated with increased learner autonomy, language awareness, and skill development—especially in speaking and listening [22].

In Indonesia, research on digital media in EFL is growing. Students were more enthusiastic and attentive when English was taught using video-based interactive modules compared to textbooks alone [23]. Meanwhile, The use of mobile learning applications enhanced students' vocabulary acquisition and self-paced learning habits [24]. Despite these findings, challenges persist. Several studies report that infrastructural limitations, such as unstable internet connections and limited device access, hinder consistent implementation in public schools [25]. Moreover, some teachers are still unfamiliar with integrating interactive digital tools into their pedagogical design, resulting in underutilization or poor alignment with curriculum goals [26].

While the benefits of digital media in EFL instruction are well-documented, few studies have centered on student perspectives in junior high schools—particularly in non-urban or developing-country contexts. Much of the existing literature tends to focus on higher education settings or teacher viewpoints [27]. Furthermore, engagement is often treated as an assumed outcome of technology use, rather than an investigated variable shaped by student perception, media characteristics, and contextual factors [28]. This study aims to address those gaps by offering empirical data on how students in Indonesian junior high schools perceive and engage with interactive digital media in their English learning. By doing so, it responds to the growing need for research that places student experience at the core of educational technology evaluation [29].

Methodology

This research utilized a quantitative descriptive design to examine students' perceptions and engagement in relation to the use of interactive digital media in English language learning. The approach was selected to capture the distribution of student responses in a natural classroom context, without introducing intervention or manipulation. Descriptive design allows for broad exploration of trends and relationships within self-reported learner experiences [30; 31]. The study involved 180 students from six public junior high schools in Jakarta, Indonesia. All participants were eighth-grade students with prior exposure to digital learning tools in English instruction. Schools were selected through purposive sampling, focusing on institutions that had integrated interactive media in their language curriculum during the previous semester. Informed consent was obtained from school administrators and parents, and all student responses were anonymized. A structured questionnaire was developed to collect data, comprising 30 items divided into three thematic categories: (1) perceptions of interactive digital media, (2) learning engagement, and (3) encountered challenges. Each item was rated on a four-point Likert scale (1 = strongly disagree to 4 = strongly agree). The instrument was adapted from existing literature on educational media evaluation and underwent expert validation to ensure content relevance. A pilot study with 30 students outside the sample yielded a Cronbach's alpha coefficient of 0.87, confirming its reliability. The questionnaire was distributed both in print and online formats, depending on school infrastructure and student access preferences. Data collection was conducted over a period of three weeks during the second academic semester. To avoid external influence, surveys were administered without teacher involvement, and students were given standardized instructions before participation. Trained assistants facilitated the process to ensure clarity and adherence to ethical standards. Data analysis was carried out using descriptive statistical methods. Frequencies, percentages, and mean scores were computed for each item to identify patterns of agreement across the three domains. In particular, indicators related to students' emotional, cognitive, and behavioral engagement with digital media were examined in conjunction with their perceptions of usability and motivational appeal. Data were processed using Microsoft Excel and SPSS version 26 for enhanced accuracy and consistency in presentation [32].

Result

This section presents the findings from 180 student responses collected through a 30-item questionnaire. The results are organized into three thematic categories: student perceptions of interactive digital media, engagement in English learning, and challenges faced during its implementation. Each item was measured using a four-point Likert scale, and descriptive statistics were used to summarize students' responses. Students demonstrated overall positive perceptions of digital media in the language classroom. As shown in Table 1, items such as visual attractiveness (A1), flexibility of access (A5), and ease of use (A2) received high mean scores ranging from 3.22 to 3.64, with over 70% of respondents agreeing or strongly agreeing. These findings indicate that digital media is perceived not only as functional but also as enjoyable and convenient for learning.

Table 1. Summary of student responses on perceptions of interactive digital media

Code	Statement Focus	Mean Score	% Agree/Strongly Agree
A1	Attractive and enjoyable interface	3.64	84.0%
A2	Easy to use	3.38	73.2%
A4	Increases motivation	3.22	83.5%
A5	Offers flexible access	3.11	84.0%
A7	Supports visual and auditory styles	3.51	77.3%

These results suggest that students value media that not only present content effectively but also cater to different learning preferences and provide autonomy in terms of time and access. The second part of the questionnaire focused on students' behavioral and emotional engagement during lessons that utilized interactive digital media. Most respondents indicated that digital media helped them improve their speaking confidence (B5), fluency (B2), and willingness to practice (B6). The highest mean score in this section was 3.61, and all items exceeded 65% in agreement.

Table 2. Summary of student responses on engagement in English learning

Code	Statement Focus	Mean Score	% Agree/Strongly Agree
B2	Improves speaking fluency	3.57	73.3%
B5	Builds confidence to speak	3.22	70.1%
B6	Encourages regular practice	3.16	79.7%
B9	Provides speaking model	3.53	68.6%
B10	Enhances overall speaking skill	3.25	71.4%

These responses reflect a consistent trend in which digital tools are associated with stronger participation and willingness to communicate in English, particularly when media include interactive and multimodal elements. Despite the benefits, students also identified several challenges related to digital media use. As seen in Table 3, the most prominent issues included unstable internet connections (C2), limited access to personal devices (C3), and distractions during online learning (C4). While the average scores in this category remained above 2.6, agreement levels also revealed critical barriers that may affect equitable use of digital tools.

Table 3. Summary of student responses on challenges in digital media use

Code	Statement Focus	Mean Score	% Agree/Strongly Agree
C2	Unstable internet connection	3.42	70.3%
C3	Lack of personal digital device	3.08	79.2%
C4	Difficulty maintaining focus	2.97	63.8%
C7	Feeling tired during digital lessons	3.32	76.0%
C10	Prefers face-to-face instruction	2.87	60.9%

These findings suggest that while digital media enhances engagement, its use remains dependent on infrastructure readiness and student self-regulation during learning. In summary, the results reveal two major findings. First, students generally perceive interactive digital media as a highly engaging and motivating tool that supports their participation, autonomy, and willingness to learn English. The combination of flexible access, visual appeal, and interactive features contributed to greater emotional and behavioral involvement; and second, the data also highlight underlying issues that may limit the full impact of these tools, including digital inequality, poor internet infrastructure, and limited instructional support. These findings point to the importance of pairing digital innovation with inclusive planning and teacher facilitation to ensure that the benefits of media integration can be experienced equally by all learners.

Discussion

The results of this study demonstrate that Indonesian junior high school students generally perceive interactive digital media as a positive and valuable element in English language learning. High mean scores across indicators such as attractiveness, flexibility, and ease of access suggest that students feel more connected and empowered when learning is supported by digital platforms. This aligns with the *Technology Acceptance Model* (TAM), which posits that when users perceive a tool as both useful and easy to use, their likelihood of adoption and sustained use increases significantly [33]. The findings affirm that students' digital literacy and familiarity with media interfaces contribute to positive perceptions, as these tools resonate with their daily experiences and preferred modes of interaction.

From a pedagogical perspective, the students' enthusiastic reception of digital media reflects the principles of *constructivist learning theory*, where learners are viewed as active agents in constructing knowledge through experience and interaction [34]. Interactive media facilitate this by offering dynamic, multimodal environments that appeal to a variety of learning styles—particularly visual and auditory. Moreover, the autonomy afforded by digital tools supports *self-regulated learning*, in which students control the pace, order, and depth of their engagement with materials [35]. These elements contribute to a more personalized learning experience, which many students in the study cited as motivating and enjoyable.

Engagement, particularly in oral language practice, emerged as a major benefit perceived by students. Digital tools that include audio-visual features—such as language apps, pronunciation simulators, and interactive video—help students internalize linguistic input and gain confidence in using spoken English. According to *Swain's Output Hypothesis*, language learners improve when they are pushed to produce language output, especially in response to

meaningful stimuli [36]. Media that present authentic conversation models, provide immediate feedback, and allow repetition create a safe space for output practice without fear of judgment—especially valuable for junior high school learners who are still developing their communicative competence.

This study further confirms that learner engagement is highest when content is both relevant and interactive. As highlighted by *Mayer's Cognitive Theory of Multimedia Learning*, learners absorb information more effectively when visual and verbal messages are presented simultaneously in a coherent and meaningful way [37]. This theory is particularly relevant to language learning, where cognitive load must be optimized to allow both language processing and content comprehension. Students in this study expressed increased enthusiasm when digital media included relatable topics, appealing visuals, and intuitive navigation—all of which reduce extraneous cognitive load and support sustained attention.

However, the study also reveals that despite high engagement, several structural and psychological challenges persist. Internet instability and unequal access to devices remain significant barriers to equitable digital learning in Indonesian public schools. These infrastructural issues are consistent with previous national studies highlighting the digital divide between urban and peri-urban schools [38]. When technology access is unreliable, the motivational advantages of digital media can quickly become sources of frustration and disengagement, particularly for students who already face socioeconomic constraints.

In addition to technical issues, students reported difficulty maintaining focus during digital lessons. This may be due to both internal and external distractions associated with learning through screens. The concept of *digital cognitive fatigue* has been explored in recent studies, suggesting that prolonged exposure to screen-based learning without adequate variation or interaction can reduce retention and increase mental fatigue [39]. Moreover, junior high school students may not yet possess the metacognitive skills to self-monitor attention and productivity, underscoring the need for structured support from teachers even in self-paced environments.

Another notable insight is the limited pedagogical guidance perceived by students during digital learning activities. Many digital learning models emphasize autonomy, but this study suggests that too much independence, especially without scaffolded instruction, may hinder deeper learning. This echoes *Vygotsky's Zone of Proximal Development*, which argues that learners progress most effectively when guided through challenging tasks by a more knowledgeable other [40]. Teachers thus remain critical in designing meaningful digital tasks, setting expectations, and providing feedback—even in tech-driven learning contexts.

Interestingly, some students expressed a preference for traditional face-to-face instruction. While this may reflect a comfort with routine learning, it may also suggest that digital media, despite their potential, have not yet been fully integrated into engaging pedagogical strategies. According to blended learning advocates, the optimal approach lies in combining the strengths of both face-to-face interaction and digital flexibility to create a more holistic and adaptive learning environment [41]. When not balanced effectively, digital tools risk being seen as novelty add-ons rather than as embedded elements of instruction.

This research contributes meaningfully by centering the student voice—an element often overlooked in studies focused primarily on teacher readiness or system-wide implementation. By foregrounding students' perspectives, this study aligns with the growing call for learner-informed educational policy and design. Previous studies in digital education

frequently assess learning outcomes but rarely ask how students interpret their own learning experiences with technology [42]. This research adds nuance to the discourse by presenting learners not merely as recipients of instruction, but as evaluators of pedagogical quality.

In sum, while interactive digital media show considerable promise for enhancing language learning, their implementation must be supported by equitable infrastructure, teacher facilitation, and instructional design that matches student needs. Engagement, though facilitated by attractive tools, ultimately depends on how well those tools are aligned with students' goals, contexts, and capacities. These findings offer practical implications for policymakers, teacher educators, and curriculum developers aiming to harness digital innovation in ways that are both inclusive and impactful [43].

Conclussion and Implication

This study provides empirical insight into how junior high school students in Indonesia perceive and engage with interactive digital media in the context of English as a Foreign Language (EFL) learning. The findings demonstrate that students generally view digital media as enjoyable, motivating, and accessible. Media features such as visual appeal, flexible access, and user-friendliness contributed to increased learner autonomy and engagement, particularly in speaking activities. Students reported that digital tools helped them gain confidence, improve fluency, and maintain interest in classroom participation.

However, these benefits are mediated by a range of structural and psychological challenges. Limited internet connectivity, lack of personal devices, cognitive fatigue, and insufficient guidance remain significant barriers to optimizing the use of digital media. These challenges underscore the importance of not only providing digital tools but also building systems that ensure equitable access and pedagogically sound integration. Without such support, even the most engaging digital content may fail to deliver meaningful educational outcomes.

The implications of this study are multifaceted. For educators, the results emphasize the need to align digital materials with student learning styles, provide ongoing support, and scaffold student interaction with content. Instructional designers should prioritize multimodal, interactive, and culturally relevant materials that foster both motivation and comprehension. Policymakers and school administrators should address infrastructure gaps and promote teacher training focused on technology-mediated pedagogy. These strategies are critical to ensure that technology functions not as a standalone solution, but as an integral part of a learner-centered ecosystem.

Theoretically, this study contributes to the growing literature on student-centered digital learning by reinforcing the importance of learner voice in technology evaluation. It affirms theories such as the Technology Acceptance Model, self-regulated learning, and multimedia learning theory, while also situating them within the realities of public junior high schools in developing contexts. Future research may expand on these findings by employing longitudinal or mixed-method approaches to explore deeper patterns of engagement and language proficiency outcomes.

In conclusion, interactive digital media hold considerable potential to transform EFL learning at the secondary level. Yet, their success depends on more than just technological availability—it requires thoughtful alignment between tools, pedagogy, and student readiness. By listening to students' experiences and designing around their needs, educators and

decision-makers can ensure that digital innovation leads to meaningful, equitable, and sustainable improvements in language education.

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