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Gamified English Instruction and Multidimensional Student Engagement: Investigating Temporal Acceleration in Upper Primary EFL Classrooms

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Abstract
Despite growing scholarly interest in gamification as a pedagogical strategy, existing research relies heavily on quantitative measures test score, participant rates, and survey instruments that reveal little about how students actually experience gamified environments. This study investigates how upper primary EFL students in an Islamic school setting in Indonesia experience gamified English instruction, and what dimensions of engagement emerge from that experience. Drawing on classroom observations, semi-structured interviews, and teacher-written reflective journals involving twelve students from grades 4 through 6 and two experienced English teachers, the study captures the texture of day-to-day engagement with Wordwall and Kahoot over a sustained instructional period. Utilizing Thematic analysis revealed four interrelated dimensions: a noticeable sharpening of behavioral participation and on-task effort; emotional transformation marked by enthusiasm and competitive anxiety; a strategic cognitive effort beyond surface level game playing; and recurring reports of temporal acceleration, interpreted as indicative of flow states. Reading these findings through the lens of self-determination theory and the multidimensional engagement framework, the study argues that gamification functions as a psychological activator rather than a mere motivational add-on. These findings suggest that when thoughtfully integrated, gamified instruction has the potential to deepen genuine learner engagement; however, future research must examine whether such engagement translates into durable linguistic gains.

Keywords: *gamification, EFL, student engagement, flow, temporal acceleration, primary education, qualitative research*

1. Introduction

Teaching English in Indonesian primary schools continues to be an exercise in managing tensions: the expectation that young learners will develop communicative competence in a foreign language they rarely encounter outside the classroom, versus instructional conditions that remain heavily textbook-driven and teacher-directed (Zein,2017; Copland et al., 2013). Under these circumstances, it is unsurprising that student motivation and sustained attention are persistently identified as challenges by both researchers and practitioners (Zainuddin et al.,2020). Digital tools have proliferated rapidly in the post-pandemic educational landscape, and among them, gamification, loosely defined as the deliberate incorporation of game design elements such as point scoring, instant feedback, timed challenges, and competitive leaderboards into non-game educational contexts (Deterding et al., 2011), then those all have attracted considerable enthusiasm.

The evidence for gamification's effectiveness is neither thin nor uncomplicated. Meta-analyses consistently report positive effects on motivation and academic performance (Bai et al.,2020; Sailer&Homner,2020; Buckley & Doyle, 2016), and within the EFL context

specifically, gamified platforms have been associated with gains in vocabulary retention and classroom participation. Yet the vast majority of this scholarship measures outcomes rather than processes. Survey instruments capture what students feel at a given moment; test scores reflect what students retained. What neither captures very well is the quality of the learning experience itself. As Pekrun and Linnenbrink-Garcia (2012) argue, the effective and experiential dimensions of learning. What it actually feels like to engage with academic tasks – remains systematically underrepresented in educational research, which has historically privileged measurable outcomes over subjective experience. This limitation is particularly consequential in EFL contexts involving young learners, where the phenomenological quality of classroom engagement, such as how a ten-year-old experiences a lesson when it suddenly carries the structures of a game, and what shifts in their relationship to a subject like English as a result, may be as pedagogically significant as any test score (Dewaele & MacIntyre, 2014; Fredricks et al.,2004)

Previous studies on gamification in EFL contexts have predominantly focused on measurable outcomes such as vocabulary acquisition, test performance, and participation rates, with comparatively little attention given to how learners subjectively experience gamified instruction over time (Bai et al.,2020; Sailer&Homner,2020). Furthermore, existing research has largely been conducted with adult or secondary level learners (Sailer & Homner,2020; Bernik et al.,2023), leaving upper primary students who occupy a developmentally distinctive position substantially underrepresented in the literature. Upper primary learners are old enough to reflect meaningfully on their own learning experiences, yet young enough that emotional and motivational factors carry considerable weight in shaping their learning trajectories (Chen et al., 2023). Studies that overlook this age group, therefore, risk producing findings that do not adequately account for the affective and experiential dimensions most salient to this population.

The limitation is further compounded by the geographic and institutional contexts in which most gamification research has been conducted. Islamic school settings, such as those found across Indonesia, remain notably educational environment. The cultural, religious, and institutional dimensions of learning in such settings may interact with gamified instruction in ways that differ meaningfully from those documented in secular or Western educational contexts. The present study, therefore, seeks to address these limitations by examining how upper primary EFL students in an Indonesian Islamic school setting experience and respond to gamified English instruction, with the aim of contributing a contextually grounded and experimentally oriented perspective to a field that has, to date, prioritized outcomes over processes.

One phenomenon that has surfaced occasionally in the gamification literature but has rarely been treated as a substantive object of inquiry is temporal distortion, specifically the sense that time passes more quickly during absorbing, immersive activities. In research on optimal experience, this is well established as a characteristic marker of flow states (Csikszentmihalyi,1990), and some recent work on digital game-based learning has begun to suggest that this perceptual acceleration may function as an indicator of highly quality engagement (Chen & Law, 2024). EFL Learners in the primary school context can articulate something, but this remains an open question.

Against this backdrop, the present study pursued three interrelated objectives. First, it sought to explore how upper primary students in an Indonesian Islamic school setting describe their lived experiences of gamified English instruction using Kahoot and Wordwall. Second, the study aimed to examine how such instruction appears to shape students'

behavioral, emotional, and cognitive engagement across classroom sessions. Third, it investigated whether students report experiences resembling temporal acceleration during gamified learning and how such experiences might be understood within existing theoretical framework of flow and multidimensional engagement.

2. Method

An interpretivist qualitative case study design was chosen to capture the nuanced experiences and meaning students attach to gamified learning (Creswell & Poth, 2018; Yin, 2018). This approach facilitated a detailed exploration of classroom behaviors, emotional reactions, and cognitive engagement within a single context.

The study took place at SD Al Mubarak Cendekia Islamic School, focusing on upper primary English classes where gamified tools had been purposefully integrated into regular classroom instruction. Participants were selected through purposive sampling (Creswell & Poth,2018), a strategy chosen because the study sought participants who could provide richly informed accounts of their experiences with gamified English learning, rather than a representative cross-section of the broader student population.

While it is acknowledged that other students in the same classes may also have experienced engagement during gamified activities, the selection criteria were deliberately designed to identify those participants most likely to provide meaningful, reflective, and contextually relevant data. Specifically, the primary criteria for selection included; active enrollment in upper primary grades (Grades 4 through 6); a minimum of four weeks of sustained and documented engagement with gamified learning tools prior to the commencement of data collection; regular and consistent attendance in the observed English classes and in the case of the student participants, the ability to articulate their learning experiences verbally during individual interview sessions, as assessed through initial screening conversations conducted with the class teachers prior the sampling. Students who met all four criteria were prioritized for inclusion, ensuring that the selected participants had sufficient experiential depth to contribute meaningfully to the study's qualitative aims.

Twelve students participated in this study, comprising four students from Grade 4, four from Grade 5, and four from Grade 6, with ages ranging from 10 to 12 years. The student group comprised seven females and five males. To protect participants confidently, all students were assigned pseudonyms throughout data collection and reporting, and any photographs or visual material captured during fieldwork were handled in accordance with ethical guidelines, with students obscured to safeguard their identities.

Two experienced English teachers also participated in the study. Teacher 1 (referred to as T1) was a female teacher with eight years of English teaching experience at the primary level, while Teacher 2 (referred to as T2) was a male teachers with six years of experience, Both teachers had been incorporating digital gamification tools into their instruction for at least two academic semesters prior to the study, and both were therefore well positioned to provide reflective and informed accounts of student engagement during gamified sessions. Before data collection began, all participants and, in the case of student participants, their parents or guardians were required to complete informed consent forms, which outlined the purpose of the study, the voluntary nature of participation, and the measures implemented to ensure confidentiality and anonymity.

The gamified instruction was implemented within the English curriculum using Wordwall for vocabulary and grammar practice and Kahoot for review activities and formative assessment. Each session lasted approximately 60 minutes and incorporated common gamification features, including scoring systems, leaderboards, timers, and instant feedback mechanisms. These activities were not standalone games but were designed as integrated pedagogical enhancements to existing English lessons, aligned with the curriculum objectives for each respective grade level.

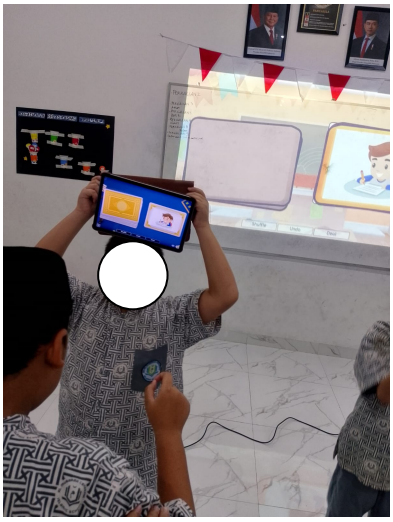

Figure 1. *A student holds up a tablet displaying a digital flashcard activity, demonstrating active physical participation during a gamified lesson*

These activities were not standalone games but integrated pedagogical enhancements to existing English lessons, deliberately aligned with the curriculum objectives for each respective grade level.

To strengthen credibility and depth, the study employed multiple data collection methods, each implemented systematically by the researcher across the duration of the fieldwork period.

Classroom Observation

Non-participatory classroom observations were conducted during four gamified sessions by the primary researcher, who served as the sole observer throughout the data collection period. Before the first observation, the researcher conducted a preliminary visit to the school to familiarize herself with the physical layout of classrooms, the seating arrangements, and the typical structure of a gamified English lesson, thereby minimizing potential observer effect during formal data collection. During each observation session. The researchers were positioned at the rear of the classroom, maintaining a noninterventionist role throughout and refraining from any interaction with students or teachers during instructional activities. Observational data were recorded using a structured observation protocol developed specifically for this study, which guided the documentation of student behavioral patterns, level of on-task engagement, emotional responses, and peer interactions during gamified activities. Field notes were written continuously during each session and expanded immediately afterward to capture contextual details that could not be

recorded in real time. A behavioral checklist was additionally employed to systematically document the frequency of specific observable behaviors, including voluntary participation, spontaneous peer interaction, off task conduct, and visible emotional responses such as laughter, applause, and expressions of frustrations or relief. Each observation session lasted approximately 60 minutes, corresponding to the full duration of the gamified English lesson.

Semi structured interviews

Semi structured interviews were conducted individually with each of the twelve student participants and both teachers by the researcher, in a quiet and private space within the school premises to ensure participant comfort and confidentiality. Each interview lasted approximately 20 to 30 minutes. Interviews were guided by a prepared set of open-ended questions developed in advance and reviewed by a qualified colleague for clarity and appropriateness. However, spontaneous follow up question were also posed to participants raised unexpected or particularly salient points during the conversation. Example of such spontaneous questions included: *"Can you tell me more about how you felt during that activity?" and "You mentioned time felt fast*, *what do you think caused that feeling*?" The decision to interview participants individually, rather than in groups, was a deliberate methodological choice intended to minimize social desirability bias and to encourage more candid, personally reflective accounts of each participant's learning experience. All interviews were audio recorded with the prior consent of participants and their parents or guardians, and recordings were stored securely on a password-protected device accessible only to the researcher.

Teacher reflective Journals

Both T1 and T2 were asked to complete written reflective journal entries following each of the four observed sessions. Teachers were provided with a structured journal template containing guiding prompts related to student engagement, observable behavioral changes, emotional responses, and any notable moments during the gamified activities. These journals served as an additional data source that captured insider pedagogical perspectives and allowed for cross verification of patterns identified through observation and interview data.

Data Transcription

All Interviews were conducted in Bahasa Indonesia rather than English, as this was the participants' first language and the primary language of daily communication in the school environment. Conducting interviews in Bahasa Indonesia ensured that students, particularly those in upper primary grades, could express their thoughts, feelings, and experiences with greater fluency, nuance, and accuracy, thereby enhancing the authenticity and richness of the data collected. Following each interview, audio recordings were transcribed verbatim by the researcher and subsequently translated into English for the purposes of thematic analysis. To ensure translation accuracy and minimize interpretive distortion. All translated transcripts were reviewed by a bilingual colleague proficient in both Bahasa Indonesia and English prior to coding. Subsequently, thematic analysis was conducted to address the research aims. The researcher employed Braun and Clarke's (2006) six-step approach, progressing through data familiarization, constructing themes, reviewing themes, defining and naming themes, and finally producing the report coding. Coding proceeded inductively, allowing themes to emerge directly from participants' accounts rather than being imposed from predetermined categories. Trustworthiness was

ensured by adhering to Linconln and Guba's (1985) four criteria framework. Credibility was maintained throughout the researcher process through several process through several concrete measures. Credibility was strengthened through triangulation data across classroom observations, students' interviews, and teacher reflective journals, allowing the researcher to cross-verify emerging patterns from multiple perspectives, and through member checking, whereby key interpretations were shared with both teachers at the conclusion of data collection to confirm their accuracy. Transferability was supported by consistently documenting detailed contextual information about the school setting, participant profiles, and instructional conditions throughout fieldwork, enabling readers to judge the applicability of findings to comparable contexts. Dependability was upheld by maintaining a dated audit trail throughout the study, recording all methodological decisions, coding developments, and analytical revisions as they occurred, so that the research process remained traceable and transparent. Finally, confirmability was addressed through reflexive journaling maintained from the first day of fieldwork, in which the researcher regularly examined how personal assumptions or positional biases may have shaped data interpretation on one notable occasion, this process prompted a reconsideration of student anxiety responses during Kahoot sessions, leading to a more nuanced reading of the data.

3. Results

3.1. Finding

This section presents findings organized around the four themes that emerged from thematic analysis, each corresponding to one dimension of student engagement observed and reported during gamified English instruction. The findings address all three-research question: students lived experiences of gamified instruction (RQ1), the behavioral, emotional, and cognitive dimensions of their engagement (RQ2), and their reports of temporal acceleration during gamified sessions (RQ3)

3.1.1 Students' Lived Experiences of Gamified Instruction

Behavior Intensification

Across observation sessions, students' behavioral engagement during Kahoot and Wordwall activities was visibly and substantially different from what both the researcher and the two participating teachers (T1 and T2) observed during conventional lessons defined here as teacher-directed, textbook-based instruction without the use of digital game elements, which represented the standard mode of English teaching before the introduction of gamified tools. Off-task behavior, including whispering, doodling and looking elsewhere, dropped markedly across all observed sessions. The behavioral checklist recorded a reduction in off-task incidents from an average of fourteen per session during conventional lessons to fewer than three per session during gamified activities. Students learned directly, maintained eye contact with the display screen, and persisted through tasks with a consistency that both teachers remarked upon independently. T1 noted during her post-session interview:

"During Kahoot, the student stays alert until the end, unlike during a usual lesson noticed that even students who normally lose focus quickly were watching the screen the whole time."

T2 similarly observed in his reflective journal following the third session:

"Every student appeared on task throughout the entire Kahoot round. I did not need redirect any student's attention, which is unusual for this class."

A particularly illustrative moment was observed during the second observation session, a Wordwall vocabulary activity conducted with a Grade 5 class one student, identified here as S7, a boy who had sat largely on the margins of earlier conventional lessons, rarely volunteering answers and occasionally needing prompting to open his textbook, gradually shifted his posture as the activity unfolded. S7 began sitting upright, then leaning slightly, toward the screen, and by the third round, he was the first in his row to raise his hand after each prompt. The field notes from this session record: *"S7, who had been passive and disengaged during the pre-observation conventional lesson, leaned forward from the second round onward and raised his hand seven times across the remaining rounds."* The contrast with earlier disposition was striking enough that T1 mentioned it unprompted during the post-session interview, stating:

"I was surprised, S7 was one of the most active students today. I have never seen him like that before."

From S7's own account during his individual interview, this heightened alertness was framed in terms of competition and pace:

"I wanted to be fast so my friends would not get ahead of me. I kept watching the leaderboard to see my name move up."

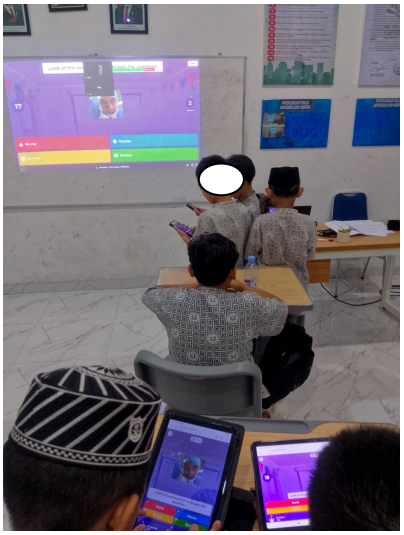

Figure 2. *Students engaging with Kahoot via personal devices during a gamified English session at SD Al Mubarak Cendekia Islamic School*

3.1.2 Behavioral, Emotional and Cognitive Dimensions of Engagement

Emotional Transformation

The emotional texture of gamified lessons was strikingly different from what students described in relation to conventional English classes. Words such as "fun", "Challenging". And "Exciting" recurred consistently across interview responses. Observable evidence during sessions reinforced these accounts; the field notes from all four sessions recorded instances of spontaneous laughter, group applause when a classmate scored well, and visible relief when answers were confirmed as correct. S3, remarked during her interview: "*English feels easier when we play, I do not feel scared to make mistakes because everyone is playing together."*

This statement pointed not merely to enjoyment but to a perceived shift in the relationship between effort and competence. a pattern that recurred cross several other student accounts. S5 noted: *"When we use Kahoot I feel like I want to try harder because I can see how I am doing straight away,"* While S10 described the experience as *"different from normal English it feels like we are doing something real."*

The emotional response was not, however, uniformly positive, and this is where data surprised us. We had anticipated broadly positive reactions; what we encountered instead was more nuanced. When asked about their experiences with Kahoot, three students, S2, S9, and S11, interpedently, in separate interview sessions, described specific discomfort at being visibly positioned at the bottom of the leaderboard in front of their classmates. S9 used the world "shame" (*"Malu*" in Bahasa Indonesia):

"When my name was at the bottom and everyone could see, I felt shame. I did not want to look at my friends."

S2 expressed a similar sentiment:

"The First time I was losing I wanted to stop playing, but then I kept going because I wanted to do better next time."

S11 added:

"It is embarrassing when you are last. But also, it makes you want to try harder so you are not last again."

These accounts collectively suggest that the discomfort, while real, was accompanied by a motivational response rather than withdrawal. On reflection, and after revisiting the relevant interview segments multiple times, we came to read this anxiety as a sign of genuine emotional investment rather than as straightforwardly negative. T1 corroborated this reading in her reflective journal:

"Three or four students looked uncomfortable when the leaderboard updated, but none of them disengaged. If anything, that seemed more focused in the next round."

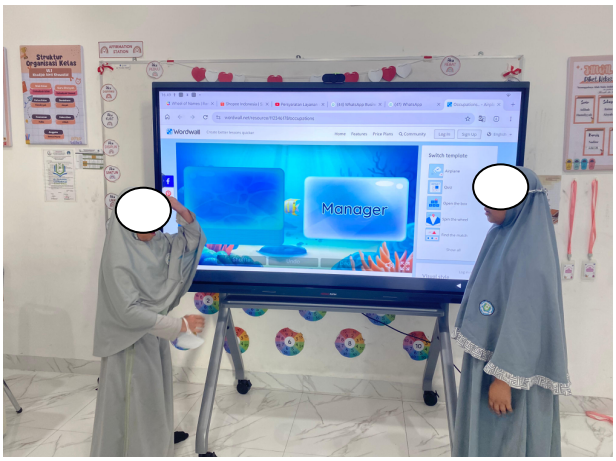

Figure 3. *Paired participation in a Wordwall vocabulary activity, illustrating peer-based engagement during gamified instruction.*

Cognitive Immersion

What distinguished students' cognitive engagement during gamified sessions was not simply that they appeared busy, but that the quality of their mental effort seemed qualitatively different from what was typically visible in conventional lessons. During Wordwall exercises, students were observed pausing to reread prompts carefully, reconsidering initial responses before submitting, and displaying visible hesitation that suggested active monitoring of their own reasoning. The field notes multiple instances of student mouthing words silently, erasing and reentering answers, and looking away from the screen briefly before responding, behaviors associated with deliberate processing rather than impulsive responding. The timer feature, rather than inducing panic, appeared in most cases to sharpen attention; eight of the twelve students described feeling "sharp" or "focused" during timed challenges in their interview responses, and six specifically mentioned adopting a strategic approach to answer selection that they did not associate with regular English tasks, S4 explained:

"When the timer is running, I think faster. I read the question and immediately start thinking about which answer makes sense, not just guessing."

S8 added:

"I check my answer before I click. In normal class I just write what the teacher says, but in Wordwall I think about it myself first."

A specific exchange during the third observation session, a grade 6 Wordwall session, made this cognitive depth concrete. Two students, S4 and S6 seated next to each other had selected different answers to the same grammar prompt. Rather than waiting passively for the result, the two students quietly debated their choices in a mixture of Bahasa Indonesia and fragmentary English in the seconds before the timer expired:

S4: *"I think it's 'goes' because the subject is singular."*

S5: *"But the sentence has 'Every day" so maybe it's different."*

Neither changed their answer in the end, and when the correct response appeared on screen, both students briefly discussed why one answer had been right. This exchange was recorded in the field notes as follows:

"S4 and S6 engaged in unprompted peer reasoning for approximately fifteen seconds before the timer expired the only instance of spontaneous grammatical metalanguage observed across all four sessions." This quality of spontaneous, peer-directed reasoning really appeared during a non-gamified lesson observed in the same classroom, and T2 noted in his journal:

"I was struck by how S4 and S6 were debating the grammar point that kind of student initiated discussion almost never happens during regular lessons."

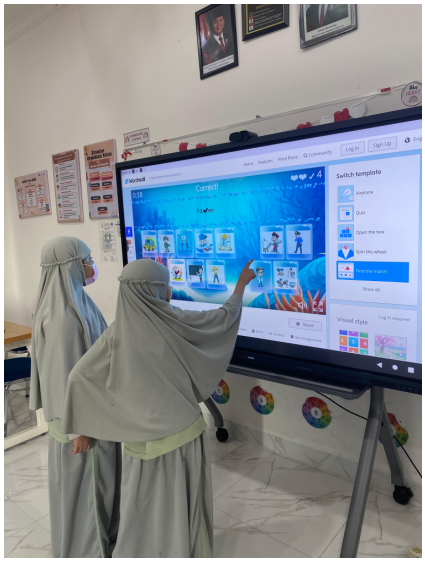

Figure 4. *A student interacts with a Wordwall ' Find match' activity on the classroom interactive display*

3.1.3 Perceived Temporal Acceleration

The Fourth pattern to emerge from the data frequency and spontaneity with which students reported that time seemed to disappear during gamified sessions. These comments did not arise in response to any direct question about time; they surfaced organically in responses to broader questions about what the lesson felt like overall. S1 expressed this in terms that were immediately striking;

"The class felt like it had just started and then it was already finished. I thought maybe only ten minutes has passed but it was the whole lesson."

S3 described a similar experience:

"Usually in English class I keep looking at the clock. But during Kahoot I forgot about the clock completely."

S7 Noted:

"It was like time the time went very fast. I was surprised when the teacher said we had to stop."

These accounts were not isolated. Variations of this observation appear across nine students' interviews and surfaced independently in both T1's and T2's reflective journals, which were completed without any knowledge of what students had reported in their individual interviews. T2 noted on three separate occasions across the four observed sessions:

"Students looked genuinely surprised when I told them the session was over. Several asked if we could continue." (Session 1 Journal entry)

"*Again, today students appeared unaware that the fully sixty minutes had passed. Two students checked then clock with visible disbelief."* (Session 3 journal entry)

T1 recorded in her journal following the second session:

"I Have never had students ask to extend an English lesson before. Today three students asked if we could keep going after I announced the sessions had ended."

What made this finding particularly salient was its consistency across participants who had not spoken with one another prior to their individual interviews and its independent corroboration in the teacher journals. The coverage of student self-reports and teachers' observations across multiple sessions and data sources suggested that the experience of temporal acceleration was a shared feature of the instructional environment rather than an idiosyncratic response unique to individual students.

3.2. Discussion

This section discusses the four themes identified in the findings, organized under subheadings that mirror those presented in the findings section. For each theme, the significance of the findings is explained, the reasons why the findings occurred are interpreted through relevant theoretical frameworks and previous studies, and similarities and differences with earlier research are considered.

3.2.1 Students' Lived Experiences of Gamified English Instruction

Behavioral Intensifications

The behavioral intensification documented across observation sessions is significant because it demonstrated that gamified instructions produced a qualitatively different classroom environment from conventional lessons, one characterized by sustained attention, effortful participation, and task persistence. This aligns with what Fredricks et al. (2004) identify as the behavioral dimension of school engagement, and its emergence in this upper primary Islamic school context, that the motivational architecture of Kahoot and Wordwall was sufficiently compelling to override the passive behavioral patterns typically observed during textbook-based instruction.

The likely reason this behavioral shift occurred lies in the design features of both platforms. The leaderboard and scoring mechanics of Kahoot and Wordwall appear to have created what might be understood, borrowing from behavioral prompts. This finding is consistent with those reported by Bai et al. (2020) and Hew et al. (2023) in gamified settings at secondary and higher education levels. That a similar pattern appears among upper primary learners in an Indonesian Islamic school context, where gamification remains sparse, extends the reach of those findings into a population that has been largely overlooked in the existing literature. However, the mechanism through which behavioral change occurs remains worth interrogating more carefully than is often assumed. Whether the same activation would occur in the absence of competitive elements if points were tracked individually rather than comparatively is a design question the data cannot answer, but that future work might productively explore. 3.2.2 Behavioral, Emotional, and Cognitive Dimensions of Engagement

Emotional Transformation

The emotional transformation documented in this study is significant for two reasons. First, it suggests that gamified instruction creates a learning environment that is qualitatively different from conventional English lessons, fostering greater enthusiasm, spontaneous social interaction, and reduced perception of learning difficulty. These emotional shifts are important because positive affective experiences have been associated with increased motivation and willingness to participate in language learning activities. Second, and more importantly, the findings indicate that learners' emotional responses to gamification were not uniformly positive. This highlights the complexity of gamified learning environments and suggest that the effectiveness of gamification depends not only on the presence of game

elements but also on how those elements are designed and implemented. The finding carries important implications for primary EFL classrooms, where game mechanics should be carefully adapted to learners' proficiency levels and emotional needs to maximize engagement while minimizing potential frustration or anxiety.

The Emotional findings resonate most naturally within self-determination theory (Deci & Ryan 2000) Which posits that intrinsic motivation is generated when three basic psychological needs, competence, autonomy, and relatedness, are satisfied. The Immediate, non-judgmental feedback loops of Kahoot and Wordwall appear to address the competence need by allowing student to test their understanding in real time without social stakes of being called upon by a teacher. Both collaborative and competitive social dynamic using platforms address relatedness needs by making the learning activity inherently interpersonal. These theoretical mechanisms explain why the emotional climate of gamified sessions was broadly more positive than that of conventional lessons.

However, the leaderboard anxiety reported independently by S2, S9, and S11 complicates a straightforward positive interpretation of Self-Determination Theory in this context and represents an important point of departure from studies reporting uniformly positive emotional outcomes in gamified learning environments. Public ranking potentially threatens competence need satisfaction for students who consistently appear near the bottom of the leaderboard. That the anxiety did not appear to displace engagement altogether and that for most students, it moderated successive sessions is consistent with Huang and Hews (2021) observation that competitive gamification generates emotional ambivalence rather than uniform positivity, a finding this study corroborates in a primary EFL context The use of the word "Malu" (shame), by S9, also points to the importance of reading emotional responses through culturally situated lenses the social dimensions of shame in Indonesian relational contexts may carry different weight than equivalent emotional vocabulary in western educational settings, a distinction that studies conducted outside Southeast Asian contexts are unlikely to have captured.

Cognitive Immersion

The cognitive engagement documented in this study is significant because it directly addresses one of the most concern in the gamification literature that competitive game elements encourage impulsive guessing rather than effortful processing (Xu et al., 2022). The evidence presented here suggests that this concern was not borne out in the present context, and understanding why this occurred has meaningful implications for how gamification is implemented in EFL classrooms.

The spontaneous peer debate observed between S4 and S6 during the Grade 6 Wordwall sessions, and the broader pattern of students pausing and reconsidering rather than responding immediately, suggest that at least in this instructional context, where games were integrated into the curriculum unit rather than used as standalone activities surface-level stimulation was not the dominant cognitive mode. This is consistent with what Fredricks et al (2004) describe as the cognitive dimension of engagement: strategic self-regulation, metacognitive monitoring, and deliberate mental effort. In comparison with studies that report predominantly shallow cognitive engagement in competitive gamified settings (Xu et al.,2022), the findings here suggest that implementation quality, not simply tool selection, may be a critical variable in determining whether gamification activates genuine cognitive engagement or merely motivates guessing.

This finding may be partly attribute to how the two teachers implemented the gamified tools Both teachers explicitly framed Kahoot and Wordwall explicitly as learning activities rather than as reward or entertainment, and this framing appears to have shaped how students approached them cognitively, This is a dimensions that survey based gamification research is structurally unable to capture, and it underscores the value of qualitative, process oriented inquiry in this fields.

3.2.3 Perceived Temporal Acceleration

The temporal acceleration finding is the most theoretically generative contribution of this study, and it is a significant extends beyond the specific context in which it was observed. The convergent, spontaneous character of students' temporal reports emerging independently across nine participants who had not shared their account with another, and corroborated without prior knowledge in both teachers' reflective journals, provides qualitative evidence that gamified instruction may, under the right conditions, generate something functionally analogous to flow states in primary EFL learners.

. The theoretical significance of this finding lies in this connection to Csikszentmihalyi's (1990) theory of flow the psychological state of optimal experience characterized by full absorption, balanced challenge and skill, and intrinsic motivation, which identifies perceived time distortion, specifically the sense that time passes faster than it objectively has, as one of its defining experiential markers. Previous research studies have not systematically examined whether primary EFL learners experience flow-like states during gamified instruction, and the present findings therefore represent a meaningful extension of flow theory into a context where it has rarely been applied empirically.

These findings resonate with those developed by Chen and Law (2004), who suggest that temporal distortions in game-based learning may serve as an indicator of learning quality rather than merely of enjoyment. If temporal acceleration is indeed a marker of the kind of absorbed intrinsically motivated engagement that educators are working toward, then it may represent a meaningful and underutilized signal in educational research. Compared with quantitative studies that rely on post hoc survey measures of engagement, the present study's capacity to capture the spontaneous and convergent nature of these temporal reports across multiple data sources represents a methodological contribution as well as a substantive one. The present study cannot establish whether the temporal perception these students reported was accompanied by measurable learning gains, and this gap represents an important avenue for subsequent investigation.

The four themes are also, importantly, interrelated rather than parallel. Behavioral sharpening created the attentional conditions for emotional investments; the positive emotional climate lowered the threshold for sustained cognitive effort; and integration of these dimensions appears to have produced, at moments, something approaching the full absorption characteristic of flow. This dynamic interconnection is consistent with the multidimensional engagement model proposed by Fredrick et al. (2004) and suggests that measuring engagement along a single dimension, as much quantitative gamification research does, risks missing the generative processes that actually produce it.

4. Conclusion

This study aimed to explore the lived experiences of upper primary EFL students engaging with gamified English instruction at SD Al Mubarak Cendekia Islamic School in Indonesia, examining how much instruction shaped their behavioral, emotional, and

cognitive engagement, and investigating whether students reported experiences of temporal acceleration during gamified sessions. The findings revealed four interrelated dimensions of engagement. First, behavioral intensification was observed across all sessions, with students demonstrating markedly higher levels of on task attention and task persistence during Kahoot and Wordwall activities compared to conventional lessons, Second, emotional transformation was evident, characterized by heightened enthusiasm and a perceived reduction in learning anxiety, though leaderboard induced discomforts was also reported by several students, indicating that emotional responses to gamified instruction are nuanced rather than uniformly positive. Third, cognitive immersion was documented through observable patterns of deliberate reasoning, metacognitive monitoring, and spontaneous peer-directed discussion during gamified tasks. Fourth and most distinctively, perceived temporal acceleration emerged spontaneously and consistently across nine student participants and was independently corroborated in both reflective journals, a convergent pattern this study interprets as indicative of flow states and as a potential empirical marker of deep, absorbing engagement in primary EFL learning.

Several limitations should be acknowledged. This study was small in scale, conducted at a single site, and limited in duration; therefore, it cannot determine whether the observed effects would persist over a full semester or diminish as the novelty of the intervention declines. The researcher's prior familiarity with the school facilitated access, but it may also have influenced classroom dynamics during observations, as participants were aware of the research context. In addition, although the Islamic school setting represents a valuable and underrepresented context for inquiry, it also introduces contextual specificity that limits the extent to which the findings can be directly generalized to other educational settings.

These findings carry meaningful implications for EFL pedagogy at the primary level. Educators and curriculum designer are encouraged to move beyond treating gamifications as a supplementary entertainment tool and to consider its potential as a structurally significant mechanism for deepening learner engagement. The emotional complexity revealed in this study particularly the culturally situated experience of '*malu'* in competitive leaderboards contexts suggest that teachers working in Indonesian Islamic school setting should be attentive to attentive to the social and relational dimensions of gamified activities and consider design modifications, such as individual progress tracking alongside competitive elements, to mitigate leaderboard induced anxiety. Furthermore, the findings that implementations framing specifically, teachers positioning gamified tools as genuine learning activities than rewards appear to influence the depth of cognitive engagement underscores the importance of professional development that prepares teachers to integrate gamification thoughtfully rather than superficially.

Future research should pursue several directions, longitudinal studies are needed to determine whether the behavioral, emotional, and cognitive engagement documented here is sustained over time or diminishes as the novelty of gamified tools fades. Comparative studies across different school contexts including secular public schools and schools in other cultural settings would help clarify the extent to which the findings reported here are specific to the Islamic school environment or reflect broader patterns in primary EFL gamification. Most urgently, sequent research should treat perceived temporal acceleration as a deliberate and measurable variable in gamified EFL learning, developing instruments capable of capturing these experiences systematically and examining its relationship to actual language learning outcomes.

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References

Bai, S., Hew, K. F., & Huang, B. (2020). Does gamification improve student learning outcome? Evidence from a meta-analysis and synthesis of qualitative data in educational contexts. Educational Research Review, 30, 100322. https://doi.org/10.1016/j.edurev.2020.100322

Bernik, A., Bubas, G., & Radosevic, D. (2023). Use of gamification in primary and secondary education: A systematic literature review. International Journal of Educational Methodology, 9(1), 103–117.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Buckley, P., & Doyle, E. (2016). Gamification and student motivation. Interactive Learning Environments, 24(6), 1162–1175. https://doi.org/10.1080/10494820.2014.964263

Chen, C. M., & Law, V. (2024). The effects of digital game-based learning on flow experience and academic achievement: A meta-analysis. Computers & Education, 202, 104829.

Chen, C. M., Liu, H. C., & Huang, H. B. (2023). Effects of gamified mobile learning on EFL students' motivation and engagement. Educational Technology & Society, 26(1), 45–60.

Copland, F., Garton, S., & Burns, A. (2013). Challenges in teaching English to young learners: Global perspectives and local realities. TESOL Quarterly, 48(4), 738–762. https://doi.org/10.1002/tesq.171

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). Thousand Oaks, CA. Sage.

Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York, NY. Harper & Row.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining gamification. In A. Lugmayr (Ed.), Proceedings of the 15th International Academic MindTrek Conference (pp. 9–15). New York, NY. ACM.

Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. Studies in Second Language Learning and Teaching, 4(2), 237–274. https://doi.org/10.14746/ssllt.2014.4.2.5

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. Review of Educational Research, 74(1), 59–109. https://doi.org/10.3102/00346543074001059

Hew, K. F., Bai, S., & Huang, W. (2023). Engaging students through gamified learning environments: A systematic review. Computers & Education, 188, 104567.

Huang, B., & Hew, K. F. (2021). Implementing gamification in higher education: Effects on motivation and flow. Educational Technology Research and Development, 69(1), 81–103.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA. Sage.

Pekrun, R., & Linnenbrink-Garcia, L. (2012). Academic emotions and student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (pp. 259–282). New York, NY. Springer.

Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. Educational Psychology Review, 32(1), 77–112. https://doi.org/10.1007/s10648-019-09498-w

Xu, B., Chen, N. S., & Chen, Y. (2022). Effects of gamified flipped learning on EFL learners' engagement. Computers & Education, 182, 104468. https://doi.org/10.1016/j.compedu.2022.104468

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). Thousand Oaks, CA. Sage.

Zainuddin, Z., Shujahat, M., Haruna, H., & Chu, S. K. W. (2020). The role of gamified e-quizzes on student learning and engagement: An interactive gamification solution for a formative assessment system. Computers & Education, 145, 103729. https://doi.org/10.1016/j.compedu.2019.103729

Zein, M. S. (2017). Elementary English education in Indonesia: Policy developments, current practices, and future prospects. English Today, 33(1), 10–16. https://doi.org/10.1017/S0266078416000407