



Gamification for Enhancing EFL Students' Procedure Text Writing Skills

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ABSTRACT

The research investigates the efficacy of gamification in advancing seventh-grade EFL students' mastery of the generic structures and linguistic features required for procedure text composition, specifically catering to the interactive learning preferences of digital-native students. Although game-based learning has demonstrated success in enhancing general student engagement, empirical evidence regarding its application to specific text types remains largely unexplored in localized contexts. This lack of targeted research limits the development of effective pedagogical strategies for procedural writing. To address this gap, the primary purpose of this study is to assess how the integration of game mechanics impacts both the procedural writing proficiency and the engagement levels of EFL students. Employing an action-oriented case study at a private school, the methodology involves integrating gamified elements, such as collaborative competition, into the curriculum, with data gathered through documents and observations. The findings reveal that gamification positively influences communication skills and linguistic competence by fostering a cooperative yet competitive environment. While students showed significant progress, the study also identified challenges, including varying engagement levels, over-gamification distracting from core objectives, and technical platform glitches, which necessitate a balanced approach to game integration. The significance of these findings lies in demonstrating that gamification can effectively bridge the gap between traditional instruction and student needs, provided there is continual teacher training and evaluation. Ultimately, this research underscores the transformative potential of gamified learning in language education while advocating for future studies with broader, more diverse sample sizes to ensure inclusive educational practices and a more universal design for procedure text instruction.

Keywords: EFL, gamification, integration, procedure text, writing skills

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INTRODUCTION

Procedure text writing is a fundamental literacy skill that involves composing sequenced instructions to guide readers in successfully performing specific activities or tasks (Derewianka, 2004). Mastering this genre requires organizational clarity and the accurate use of specific linguistic features, such as action verbs in the imperative mood, sequence markers, and precise technical terms (Anderson & Anderson, 1998). Developing this skill is highly important as it equips learners with the practical communicative competence needed to navigate and provide directions for real-world situations.

Despite its practical importance, acquiring this skill poses significant pedagogical challenges, particularly for English as a Foreign Language (EFL) students. In EFL writing classrooms, students frequently encounter complex challenges, such as grammatical errors, difficulties in logical text organization, and high levels of second-language writing anxiety (Alamri et al., [2021](#); Zhou et al., [2022](#)). Procedure texts uniquely require innovative interventions because their inherent generic structure—heavily reliant on rigid chronological sequences and mechanical imperative commands—often renders them dry and unengaging for students when taught through traditional methods. Furthermore, traditional writing instruction often fails to foster students' intrinsic motivation or provide the engagement necessary to overcome these language barriers (Deci & Ryan, [2016](#)).

To address these pedagogical challenges, this research proposes the integration of gamification as an alternative instructional solution. Gamification is defined as the strategic incorporation of game design elements and mechanics into learning environments to stimulate motivation and engagement (Alsawaier, [2017](#); Goethe, [2019](#)). The implementation typically involves utilizing mechanics such as points, leaderboards, and collaborative challenges woven into the teaching stages. Gamification is uniquely suited for procedural writing; for example, a treasure hunt adventure naturally mirrors the generic structure of a procedure text, as both require navigating sequenced information and successfully performing activities to achieve a specific goal (Derewianka, [2004](#); Micheal & Kellett, [2023](#)). By contextualizing standard grammar drills into meaningful quests, gamification lowers writing anxiety, fosters peer collaboration, and provides a safe space for students to practice language (Valisevski & Birt, [2019](#)).

The efficacy of this approach is heavily supported by foundational learning theories. Gamification aligns closely with Self-Determination Theory (SDT), which posits that fulfilling students' basic psychological needs for autonomy, competence, and relatedness significantly increases their intrinsic motivation (Ünlü, [2022](#)). Additionally, structural game-design frameworks like the MDA (Mechanics, Dynamics, Aesthetics) model ensure that the intervention goes beyond simple reward systems, creating a dynamic environment that promotes deep cognitive engagement and personal linguistic development (Hunicke et al., [2004](#)).

While gamification efficiently boosts general engagement (Hanus & Fox, [2015](#)), more empirical studies are needed to provide solid evidence of its benefits on specific learning outcomes like procedural text composition (Dichev & Dicheva, [2017](#)). Consequently, there is limited localized research addressing how these game mechanics specifically aid the linguistic development required for procedural writing under the genre-based pedagogy of the Kurikulum Merdeka framework. For an international context, Kurikulum Merdeka (the Emancipated Learning Curriculum) is Indonesia's student-centered national educational policy that emphasizes experiential learning and the cultivation of critical 21st-century skills, deliberately moving away from rigid traditional instruction (Intiana et al.,

[2023](#); Muliardi, [2023](#)). Because this curriculum provides students with the freedom to explore interactive learning environments, it serves as an ideal ecosystem for the integration of gamified English instruction (Mughni, [2023](#)).

The contribution to knowledge lies in providing empirical evidence for the transformative potential of gamified learning within this Indonesian educational landscape. Built upon these theoretical affordances, the primary purpose of this research is to examine the efficacy of gamification as a strategic medium in improving EFL students' proficiency in composing procedure texts. To systematically investigate this, the study seeks to answer the following explicit and measurable research questions: (1) How does a gamified treasure hunt approach support EFL students' writing of procedure texts? and (2) What linguistic evidence characterizes students' skill development in writing procedure texts as a result of this gamified intervention?

The evolution of digital native learners and pedagogical necessities

Technological advancements have transformed student needs and characteristics, compelling educators to adopt innovative approaches that cater to the preferences of digital-native learners (Kwon, [2019](#)). In the Indonesian context, this demographic is defined by their pervasive use of digital platforms for both social interaction and academic matters, possessing a strong preference for multimedia content, rapid information processing, and experiential learning (Intiana et al., [2023](#)). Because these students naturally thrive in highly interactive, visually stimulating environments, there is an urgent pedagogical necessity to reevaluate traditional, passive teaching methods to better align with their cognitive habits (Kwon, [2019](#)). One of the primary ways to bridge this gap is by incorporating the concept and mechanics of games into teaching and learning activities, a process known as gamification (Alsawaier, [2017](#); Goethe, [2019](#)). This method transcends conventional learning paradigms by leveraging elements intrinsic to gaming experiences, such as challenges and rewards, to enhance knowledge acquisition. By infusing gamification strategies into educational modules, educators create a dynamic environment where students actively participate and problem-solve, thereby deepening their achievement (Rohmah, [2022](#)). Furthermore, this integration familiarizes learners with various multimedia texts, equipping them with essential skills for effective communication in today's digitally-driven landscape (Nurtanto et al., [2021](#)).

As a process that aims to increase intrinsic motivation, gamification aligns closely with Self-Determination Theory (SDT). According to Deci and Ryan ([2016](#)), individuals are more likely to be engaged when their basic psychological needs—autonomy, competence, and relatedness—are met (Ünlü, [2022](#)). Autonomy allows students to feel control over their actions, while competence is fostered through challenging yet achievable tasks (Pownall et al., [2022](#)). To operationalize these needs, Marczewski ([2015](#)) designed the RAMP model, which emphasizes relatedness, autonomy, mastery, and purpose as inducers of intrinsic motivation. Moreover, effective gamification goes beyond simple

reward systems by following the MDA (Mechanics, Dynamics, Aesthetics) model (Hunicke et al., [2004](#)). Mechanics refer to the rules and components, such as progress bars and leaderboards (Arnab & Clarke, [2015](#)). Dynamics refer to the behaviors and interactions that occur within the system, such as peer collaboration (Charles et al., [2011](#)). Finally, aesthetics represent the emotional response of the player, increasing motivation through the acquisition of personal development and competence (Kien & Nguyen, [2021](#)).

Genre-based pedagogy and procedure text composition in Indonesia

Within the Indonesian educational landscape, the Kurikulum Merdeka anchors its English teaching approach in genre-based pedagogy, which focuses on the study of different text genres to develop comprehensive literacy skills (Intiana et al., [2023](#)). Procedure text is a specific genre designed to provide sequenced information so that readers can successfully perform activities (Anderson & Anderson, [1998](#); Derewianka, [2004](#)). Linguistically, these texts require the use of action verbs in the imperative mood, sequence markers, and precise technical terms. However, for Indonesian junior high school students—who are frequently categorized as intermediate or limited writers—mastering these features presents a significant practical challenge (Ismiati & Pebriantika, [2020](#)). The failure of traditional genre pedagogy for these specific students often stems from its execution; classroom instruction frequently regresses into passive, teacher-centered text deconstruction and mechanical drilling. This traditional approach isolates the linguistic features from their authentic, interactive social functions, causing learners to struggle with vocabulary retention and composition organization, while simultaneously exacerbating the anxiety associated with foreign language writing (Dewi et al., [2021](#)).

To rectify this pedagogical shortcoming and align with the interactive preferences of digital-native learners, educators can integrate gamification to simulate real-world communicative situations. This integration creates a single, cohesive conceptual framework that synthesizes the linguistic objectives of genre-based pedagogy with the psychological drivers of Self-Determination Theory (SDT) and the structural design of the MDA model. Specifically, the game mechanics and dynamics (MDA) provide the authentic, goal-oriented context that traditional genre pedagogy often lacks (Hunicke, LeBlanc, & Zubek, [2004](#)). By working through collaborative challenges to decipher procedural clues, students fulfill their basic psychological needs for relatedness, autonomy, and competence (Deci & Ryan, [2016](#); Ünlü, [2022](#)). This heightened intrinsic motivation (SDT) directly fuels their cognitive engagement with the linguistic features of the text (GBA), effectively minimizing the gap between educational implementation and learner acquisition. Recent local empirical studies support this integration; for instance, Mila and Mahbub ([2022](#)) demonstrated that game-based learning effectively promotes grammatical mastery among Indonesian EFL learners, while (Rohmah, [2022](#)) found that gamification significantly elevates student engagement and achievement in local school settings. These digital gamification strategies have emerged as enjoyable techniques to minimize the gap between

educational implementation and learner acquisition, capitalizing on the motivational catalysts identified by Second Language Acquisition experts (Dehghanzadeh et al., [2016](#); Kapp, [2016](#)).

Despite these isolated localized successes, a broader, unified discourse regarding the specific effects of gamification on procedural writing skills within Indonesia remains urgent but lacking. The urgency stems from the pressing need to equip Indonesian digital-native learners with the critical 21st-century communication and collaboration skills mandated by the Kurikulum Merdeka (Spies & Xu, [2018](#); Muliardi, [2023](#)). While international literature confirms gamification's capacity to boost general engagement (Dichev & Dicheva, [2017](#)), there is an immediate pedagogical necessity for targeted, empirical evidence on its ability to drive specific learning outcomes like procedure text composition. Therefore, this (Dichev & Dicheva, [2017](#)) research is built upon these synthesized theoretical affordances, intending to provide an in-depth understanding of how gamification can be effectively integrated into the Indonesian EFL classroom to improve students' writing skills and overall linguistic competence.

METHOD

The study utilized a qualitative approach centered on an action-oriented case study design. This specific methodology, rooted in the concepts introduced by Argyris and Schön, engages participants in addressing real-world challenges within professional contexts to foster a deeper comprehension of complex social situations (Friedman & Rogers, [2009](#)). By combining elements of action research, which focuses on improvement through intervention, with case study research, which allows for in-depth examination of a specific unit, this design was deemed most suitable for investigating the potential of gamified learning (Yin, [2009](#)). Consequently, this methodological synergy provided a framework to systematically capture and analyze the behavioral and academic shifts resulting from the gamified intervention.

The primary objective was not to test a rigid or pre-defined hypothesis. Instead, the focus remained on obtaining a nuanced understanding of how gamification facilitates the development of English writing skills in an authentic classroom setting. Within this research, the role of the researcher-teacher was adopted. Fully immersing the researcher as the "pirate captain" was a deliberate pedagogical necessity; establishing this insider positionality was required to authentically drive the gamified narrative, model the game mechanics, and establish a high level of trust with the students. While this insider positionality allowed for direct observation and the establishment of a high level of trust with students, it also introduced the potential for subjective bias. To actively mitigate this bias, the actual class teacher transitioned into the role of an objective observer, closely monitoring classroom activities, interactions, and dynamics (Kitchen & Stevens, [2008](#)). Professional discussions were conducted before and after each session to reflect on the teaching methods. This collaborative dual-perspective approach structurally neutralizes any concerns of subjectivity by cross-referencing the researcher's active field

experiences with tactful, honest feedback from an external viewpoint ensuring a rigorous and balanced qualitative analysis (Patton, [2002](#)).

The research was conducted at a private junior high school in Bandung, chosen for its accessibility and its established role as a practical learning laboratory for a local public university. The school utilizes the Kurikulum Merdeka, which emphasizes student-centeredness and a genre-based approach, aligning perfectly with the study's integration of gamification. Through purposeful selection, the 7D class was chosen as the primary participant group. This class consisted of 20 students; while gender distribution was mixed to facilitate diverse collaborative groups during the game, it was not treated as a primary variable of interest, as the study holistically evaluated overarching linguistic development. The selection of 20 students from a single, purposefully chosen class was a deliberate parameter of this action-oriented case study; rather than seeking broad generalizability, this localized sample allowed for an intensive, highly detailed examination of gamification within a specific, authentic environment. Prior to any data collection, ethical protocols were strictly followed: institutional ethical clearance was secured, formal informed consent was obtained from the parents or guardians, and explicit assent was gathered from the minor students involved. The class was specifically selected due to their current curricular focus on procedure texts and their age-appropriate cognitive development, which makes them receptive to engaging with complex game mechanics (Gee, [2003](#); Nugraha et al., [2020](#)).

The students in this class exhibited a beginner to pre-intermediate English proficiency level, which was determined by triangulating the classroom teacher's prior assessments with the researcher's own initial observations prior to the intervention (Richards & Rodgers, [2001](#)). This baseline proficiency was firmly established by leveraging the students' prior exam scores and existing summative assessments alongside the classroom teacher's expert evaluation. Utilizing this pre-existing academic data accurately reflected the expected grade-level standards and negated the need for an intrusive, redundant standardized diagnostic test, thereby avoiding unnecessary disruption to the students' learning environment. Although the students had previous exposure to procedure texts, professional discussions with the observer indicated a persistent need for intensive instruction regarding the generic structures and linguistic features of the genre. The treatment spanned three weeks, consisting of two 80-minute meetings per week. This specific timeframe was chosen strategically because it aligned with the school's timeline, providing adequate time to observe the transition from guided activities to independent writing without disrupting the existing curriculum. Furthermore, rather than utilizing a rigid, pre-defined quantitative assessment rubric, student outputs were evaluated qualitatively through content analysis focused on their functional application of genre structures, allowing for a more nuanced understanding of their writing progression.

Data collection instrumentation and triangulation

To ensure that the findings were valid and reliable, the study employed triangulation through multiple data sources (Creswell, [2012](#)). The primary instruments included student document collection, reflective field notes, and observation notes. Document collection allowed for an assessment of students' writing progress, while the notes provided the context behind the performance (Yin, [2009](#)). The following tables outline the specific criteria and structures used to maintain consistency during the observation and reflection phases.

Table 1. Outline of the Reflective Field Note Content

No	Component	Description
1	Introduction	Brief overview of the context and objective
2	Positionality	Reflecting on assumptions and prior knowledge
3	Observations	Detailed, objective records of the research setting
4	Reflections	Interpretation of the meaning of observed data
5	Conclusion	Summary of key insights and areas for refinement

Table 1 describes the framework for the researcher's self-reflection as adapted from Schwandt ([2015](#)). The positionality section is vital as it requires the researcher to acknowledge personal biases or assumptions before interpreting student behavior (Mocanu et al., [2021](#)). By categorizing insights into reflections and conclusions, the researcher can distinguish between raw data and the theoretical interpretation of that data to ensure the final analysis is grounded in specific classroom occurrences (Adebayo & Allen, [2020](#)). Ultimately, this structured approach to journaling ensures that the researcher's pedagogical decisions and subsequent analyses remain transparent, consistent, and rigorously tied to the actual realities of the gamified classroom.

Table 2. Outline of the Observation Note Content

No	Component	Description
1	Teaching Context	The specific environment and timing of the lesson
2	Strategies	Description of teaching techniques used
3	Engagement	Observations of student behavior and participation
4	Interactions	Notable events or dialogues between participants
5	Dynamics	Overall classroom atmosphere and environment

Table 2 provides the structure for the observer to document the classroom environment objectively as adapted from O'Leary ([2013](#)). The focus on notable interactions and classroom dynamics allows the observer to capture the peer-to-peer collaboration that is central to gamified learning (Parkinson et al., [2017](#)). This external log acts as a cross-reference for the field notes to identify whether the gamification was engaging or if certain mechanics caused confusion or anxiety (Schwandt, [2015](#)).

Intervention procedures and gamification stages

The intervention followed the four stages of the genre-based approach, which were woven into a treasure hunt adventure scenario. Students acted as pirates navigating different islands on a treasure

map and solving 17 distinct challenges to reach the final goal (Micheal & Kellett, 2023). This narrative layer provided the dynamics and aesthetics required to transform standard grammar drills into meaningful quests (Valisevski & Birt, 2019).

[Table 3](#) outlines the activities designed to immerse students in the vocabulary of the house within the Building Knowledge of the Field stage. By using points and leaderboards in the initial activity, the teacher establishes the competitive atmosphere necessary for gamification (Goethe, 2019). The transition from listening to visualization shows an increase in cognitive demand. The theme connection column illustrates how each pedagogical task is rebranded as a pirate challenge to maintain motivation through consistent storytelling (Kapp, 2012).

Table 3. Outline for Building Knowledge of the Field Stage

No.	Activity	Learning Objective	Learning Media	Game-Based Element	Theme Connection
1	Identify the house	Listen to a conversation for specific information	Powerpoint slides	Points, leaderboards	Introduction to the lesson
2	Fill out missing words in cloze procedure	Listen to a conversation for specific information	Powerpoint slides	Badges, progression	First pirate challenge
3	Decipher information to identify the room	Learn about rooms in the house	Google Docs	Time limits, collaboration	End of journey in the first island
4	Find the next clue by solving a riddle	Learn about things in the house	Padlet	Challenges, rewards	Next island progression
5	Visualize a room based on description	Learn about preposition	Sketching application	Competition, levels	Clue collection
6	Write and present a description	Describe a house, a room, and the things in the room	Google Docs	Customization, feedback	Pirate checkpoint

[Table 4](#) details the modeling phase where the linguistic features of procedure texts are introduced. Activity 10, the imperative race, utilizes competition to encourage students to produce imperative sentences within a timeframe (Dicheva et al., 2019). This helps students internalize the grammar needed for instructions. The sentence ordering in Activity 12 serves as a test for the hunt to ensure students understand the generic structure before moving to construction (New Horizon Report, 2013). Therefore, this modeling phase ensures that students are linguistically equipped with the necessary grammatical foundations to participate in the subsequent collaborative tasks.

Table 4. Outline for Modeling of the Text Stage

No.	Activity	Learning Objective	Learning Media	Game-Based Element	Theme Connection
1	Identify the house	Listen to a conversation for specific information	Powerpoint slides	Points, leaderboards	Introduction to the lesson
2	Fill out missing words in cloze procedure	Listen to a conversation for specific information	Powerpoint slides	Badges, progression	First pirate challenge
3	Decipher information to identify the room	Learn about rooms in the house	Google Docs	Time limits, collaboration	End of journey in the first island
4	Find the next clue by solving a riddle	Learn about things in the house	Padlet	Challenges, rewards	Next island progression
5	Visualize a room based on description	Learn about preposition	Sketching application	Competition, levels	Clue collection
6	Write and present a description	Describe a house, a room, and the things in the room	Google Docs	Customization, feedback	Pirate checkpoint

[Table 5](#) describes the joint construction phase where the teacher and students work together. Activity 15 is critical as it uses the narrative element to frame the writing task as a shared mission. This stage reduces the risk of writing alone and allows students to learn from peer strengths and teacher feedback to scaffold them toward independent work (Mila & Mahbub, [2022](#)). Thus, the joint construction phase acts as a vital instructional bridge, smoothly transitioning learners from guided comprehension to confident, collaborative production.

Table 5. Outline for Joint Construction of the Text Stage

No.	Activity	Learning Objective	Learning Media	Game-Based Element	Theme Connection
13	Match imperative	Learn imperative sentences	Learning application	Challenges, rewards	Progression
14	Order pictures	Identify procedure text	Learning application	Competition, collaboration	Competitive race
15	Collaborative text	Jointly compose a text	Padlet	Narrative, rewards	Preparation for final challenge

[Table 6](#) marks the final stage of the learning cycle. In Activity 17, students apply acquired skills to create an individual procedure text on a poster (Nugraha et al., [2020](#)). The rewards mentioned here are the culmination of the treasure hunt. This final task serves as the primary document for content analysis to evaluate whether students can independently use action verbs and proper generic structure (Mughni, [2023](#)). Consequently, this stage provides definitive evidence of the students' ability to synthesize gamification in learning into tangible, structured linguistic outputs.

Table 6. Outline for Independent Construction of the Text Stage

No.	Activity	Learning Objective	Learning Media	Game-Based Element	Theme Connection
16	Garbage separation	Review procedure text	Google Docs	Feedback, narrative	Final progression
17	Individual writing	Compose final text	Canva	Storytelling, rewards	Last challenge and treasure distribution

The collected data was analyzed using two primary qualitative methods. Because the objective of qualitative content analysis is to unveil significant patterns and developmental progression rather than providing rigid counts or statistical significance, imposing restrictive quantitative validation tools would undermine the nuanced understanding of the students' learning reality. Instead, the writing assessment process was conducted qualitatively through the framework of Systemic Functional Linguistics (SFL) (Martin & Rose, [2008](#)). Content analysis was applied to student documents to evaluate their functional application of genre-specific features, specifically identifying their mastery of the Goal, Materials, and Steps structures, as well as lexicogrammatical features like imperative verbs (Krippendorff, [2004](#)). Rather than utilizing an external coding manual, the inherent structural features of the procedure text genre itself—specifically identifying their mastery of the Goal, Materials, and Steps structures, as well as lexicogrammatical features like imperative verbs—served as the intrinsic analytical criteria. This involved a systematic coding process including preparation, organization, and reporting to categorize writing complexity (Elo & Kyngas, [2008](#)).

Simultaneously, constructionist thematic analysis was applied to the reflective and observation notes (Merriam, [2009](#)). This followed an iterative process of familiarizing with data, generating initial codes, and defining themes (Braun & Clarke, [2006](#)). The codes were synthesized into broader categories such as student-teacher interaction and writing skill progression to offer a comprehensive report on the intervention (Schultz et al., [2016](#)). For example, the category of “writing skill progression” was systematically generated by tracking the shift from simple, run-on sentences in early collaborative drafts to the sophisticated use of sequence markers in the final outputs. To ensure the trustworthiness and credibility of this research, investigator triangulation was rigorously applied; the researcher’s self-reflective field notes were continually cross-referenced against the external observer’s logs to guarantee that the interpreted themes represented objective classroom realities rather than subjective researcher bias (Patton, [2002](#)).

RESULTS & DISCUSSION

Result

The implementation of gamification in this study was executed as a six-meeting intervention based on a treasure hunt model designed to teach procedure text writing. The pedagogical journey is visualized in [Figure 1](#), which serves as the overarching guide for the students through the islands of the Genre Based Approach.



Figure 1. The Treasure Map

Figure 1 illustrates the visual narrative used to anchor the classroom activities. Each island on the map corresponds to a specific stage of the learning cycle, namely Building Knowledge of the Field, Modeling, Joint Construction, and Independent Construction. This visual scaffolding provided a sense of progression and purpose, allowing students to visualize their academic growth as a physical journey toward a treasure. The map served as a constant reference point to maintain the pirate theme throughout the three week intervention (Micheal & Kellett, [2023](#)).

To ensure structured participation and maintain the competitive integrity of the game, specific regulations were introduced by the researcher acting as the pirate captain. These rules are delineated in [Table 7](#).

Table 7. Treasure Hunt Rules

No.	Activity
1	Form teams of 4-5 members.
2	Choose a unique pirate crew name.
3	Follow the clues to progress through the hunt.
4	Solve the challenges to unveil the next location in the treasure map.
5	Attend all scheduled meetings; later arrivals may result in missing essential clues.
6	Points will be awarded based on the completion and participation in each challenge.
7	Play the game in the spirit of fun and fair competition.
8	Respect other crews.
9	The crew with the highest accumulated points at the end of the hunt will be declared the winner.
10	Enjoy the hunt and have a great time!

[Table 7](#) outlines the behavioral and operational expectations for the students. The rules were designed to foster a balance between individual accountability and group collaboration. By requiring unique crew names and establishing a point system, the researcher utilized the mechanics of competition to drive engagement. The emphasis on respect and fair play ensured that the competitive environment remained constructive and inclusive. Furthermore, by situating students within these collaborative, goal-oriented teams where they actively relied on one another to decipher clues and progress, the intervention explicitly activated the psychological drivers of Self-Determination Theory (SDT). Fulfilling the students' needs for relatedness (through teamwork) and autonomy (through self-directed challenge solving) directly fueled their intrinsic motivation to engage with the complex linguistic tasks that followed (Deci & Ryan, [2016](#); Ünlü, [2022](#)). Initial findings regarding classroom dynamics indicated a degree of social friction during the grouping phase. Table 8 captures the qualitative data regarding this interaction, where social barriers between male and female students were observed.

Table 8. Classroom Interaction 1

Excerpt 1
Student: So, we'll be learning by playing games, Sir?
Teacher: Yes!
Student: Wow, okay, will we get a prize later?
Teacher: Of course! So, at the end of all the sessions, you will get a treasure. That's why it's called a treasure hunt! You need to form your own groups, okay?
Student: But, is the grouping up to us?
Teacher: Yes, it's up to you, but it must be a mix of boys and girls.
Student: Aw, Sir. I don't want to work with the boys.
Teacher: Well, you have to. Now, please make your groups.

[Table 8](#) presents a transcript from the first meeting, revealing the initial student reactions to the gamified intervention. While students expressed immediate excitement about the game and potential rewards, the requirement for mixed gender groups met with resistance. This resistance highlights a pre-existing social barrier that the gamification strategy aimed to dismantle by forcing collaborative dynamics. The dialogue confirms that rewards serve as a primary extrinsic motivator in the initial stages of gamification (Fischer et al., [2019](#)).

As the intervention moved into the text modeling phase, digital tools such as Padlet were utilized to baseline writing skills. Figure 2 illustrates the digital environment where students first attempted to compose procedure texts.

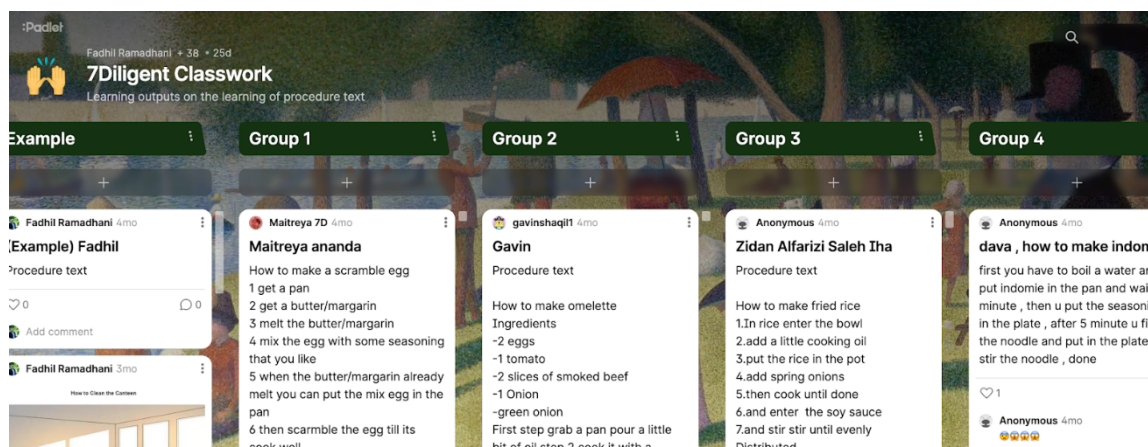


Figure 2. Students' Padlet

[Figure 2](#) displays the interactive whiteboard used during the second and third meetings. This platform allowed for immediate visibility of peer work, facilitating a shared learning environment. The preliminary texts posted here showed significant errors in grammar, punctuation, and generic structure. Many students failed to include a clear list of materials or used simple present tense incorrectly, which served as a baseline for measuring later progress (Alamri et al., [2021](#)).

During the Joint Construction stage, the researcher and students collaborated to create a text while maintaining the pirate theme. [Table 9](#) captures the dialogue during this collaborative writing process.

Table 9. Classroom Interaction 2

Excerpt 2
Teacher: Now, we have found the clue! It says we need to clean the pirate ship. How do we do that?
Student: First, take a broom, sir.
Teacher: Good. And then what? Should I just look at the broom?
Student: No! Sweep the floor!
Teacher: Excellent. 'Sweep the floor.' What kind of word is 'sweep'?
Student: Verb, Sir.

[Table 9](#) illustrates the transition from passive observation to active linguistic production. By framing the writing task as a requirement to maintain the pirate ship, the researcher elicited imperative sentences and action verbs from the students. This dialogue demonstrates how the gamified narrative provides a contextual "need" for specific language features, which is a core tenet of genre-based pedagogy (Derewianka, [2004](#)). Furthermore, successfully deciphering these linguistic clues to advance the narrative fulfilled the students' psychological need for competence, solidifying the final pillar of the SDT framework within the gamified ecosystem (Deci & Ryan, [2016](#)).

To provide a granular analysis of writing growth, the work of Student A from the low attaining group is analyzed using the Systemic Functional Linguistics framework. Table 16 provides a comparative look at the pre intervention text for Alex.

Table 10. Analysis of Student A pre-intervention text

Structure	Clause	Text
Goal		How to make a sunny side up egg
Materials		Materials: - One egg - a pinch of salt - a pinch of blackpepper - soy sauce
Steps	1	First step is to prepare a pan
	2	And crack the egg in to the pan
	3	And add a pinch of salt and blackpepper,
	4	Let it set for 3 minutes,
	5	When it's done,
	6	Put it on a plate
	7	And serve it with soy sauce

[Table 10](#) breaks down the initial writing attempt of a student before the gamified intervention. The analysis indicates that while the student understood the basic components of a procedure text, the linguistic realization was repetitive. The student relied heavily on the coordinating conjunction "and" to link steps rather than using diverse temporal connectives. Furthermore, capitalization was inconsistent, and the formatting lacked the professional clarity expected in a procedure text (Martin & Rose, [2008](#)).

Following the intervention, a post intervention text was collected from the same student to evaluate progress. [Table 11](#) illustrates the qualitative shift in writing quality.

Table 11. Analysis of Student A post-intervention text

Structure	Clause	Text
Goal		How to wash the dishes
Materials		Equipments needed: - Dirty dishes - Soap - Sponge - Clean towel - Sink
Steps	1	Start by filling your sink with soapy water
	2	Rinse each dish under running water to remove any loose food
	3	Stack the dishes on the counter as you go
	4	Use the sponge to scrub each dish
	5	Place the clean dishes in the dish rack

[Table 11](#) demonstrates a qualitative improvement in the ability of the student to organize procedural information. Alex successfully transitioned from run on sentences joined by "and" to using a clear sequence of temporal adverbs such as "First," "Second," and "Finally." The use of the imperative mood is more direct and grammatically accurate compared to the pre intervention text. Additionally, the

student included a clear "You will need" section for materials, showing a better grasp of the generic structure (Derewianka, 2004).

The final stage of Independent Construction resulted in the production of multimodal posters. The transition toward linguistic development was measured by comparing initial outputs with the final posters created in Canva. A sample of the final individual production is shown in [Figure 3](#).



Figure 3. Sample of students' poster

[Figure 3](#) showcases a representative final product from Student B. The poster demonstrates a successful integration of technical vocabulary and visual aesthetics. Unlike the initial drafts on Padlet, this final output adheres strictly to the generic structure of a procedure text, featuring a clear goal, a comprehensive list of materials, and a sequenced set of instructions. The use of imperative verbs such as "Prepare," "Plug," and "Fold" indicates a refined understanding of the linguistic features of the genre (Derewianka, 2004).

While the detailed structural analyses ([Tables 10](#) & [11](#)) specifically highlight the individual trajectories of Students A and B to provide a granular view of the linguistic mechanics at play, these individual gains are reflective of the broader aggregated development observed across the entire 7D classroom. Based on the constructionist thematic analysis of the collected documents (22 pre-texts and 22 post-texts), field notes, and observations, three primary aggregated themes emerged regarding the class's overall linguistic progression.

The first prominent theme was the achievement of structural mastery across the classroom. The qualitative data revealed a class-wide shift from ignoring proper text structures to developing capable control over genre elements. In their initial drafts, students frequently conflated the components of a procedure text, often burying the 'Materials' required within a single, continuous paragraph of actions. Following the intervention, however, the aggregated outputs demonstrated a successful transition where most students clearly demarcated the 'Goal,' 'Materials' list, and sequential 'Steps' into distinct, appropriately formatted sections, satisfying the schematic structure of the genre.

The second aggregated theme centered on lexicogrammatical consistency. Over the course of the intervention, there was a collective improvement in the students' use of the imperative mood and temporal adverbs. The baseline texts heavily featured run-on sentences connected by basic, repetitive conjunctions like "and," which obscured the step-by-step nature of the instructions. In contrast, the post-intervention data showed that students systematically replaced these run-on structures with direct, action-oriented imperative commands. Furthermore, they successfully integrated sequence markers and temporal adverbs—such as "First," "Then," and "Afterwards"—which provided their texts with a clear, logical flow and accurate chronological progression.

The final theme highlighted the presence of persistent mechanics issues despite the overarching structural and grammatical growth. The aggregated data indicated that minor grammatical errors and punctuation mistakes, most notably missing periods at the ends of sentences, persisted across both high-attaining and low-attaining groups. These persistent micro-level errors underscore typical L1 interference challenges and the developmental stages inherent to EFL learners. While the macro-level communication of the procedure texts improved significantly, these minor discrepancies highlight areas where future interventions might provide more targeted drilling on writing mechanics.

It must be reiterated that because this study is firmly rooted in the qualitative paradigm of an action-oriented case study, the evidence of this development is intrinsically qualitative and descriptive; the analysis deliberately focuses on these structural and functional themes rather than employing statistical frequency counts or quantitative metrics to validate student progression. Furthermore, the screenshots of digital tools such as Padlet and Canva are provided as illustrative artifacts of the students' authentic, multimodal learning environment; they are not intended to serve as standalone, systematic linguistic breakdowns, but rather as contextual evidence of the digital platforms where the analyzed textual progression occurred.

Discussion

Pedagogical advantages of the gamified approach

The primary finding of this research is the substantial increase in student engagement observed during the treasure hunt. Specifically, the team-based competition mechanic and the overarching pirate narrative manifested observable reductions in writing anxiety and a qualitative rise in self-efficacy. Because this study is firmly rooted in the paradigm of qualitative action research, these affective shifts were deliberately evaluated through behavioral indicators, such as increased active participation, spontaneous peer collaboration, and a willingness to share drafts, rather than through isolated, quantitative psychometric instruments. Rather than focusing solely on individual linguistic competence, the gamified structure prioritizes 'relatedness'; observational data indicated that anxious writers felt supported by their crew members, as the shared mission shifted the focus from personal failure to collective problem-solving (Zhou et al., [2022](#)). This aligns with previous assertions that gamification

makes learning more exciting and enjoyable for EFL learners (Ortega-arranz et al., [2018](#)). The interactive nature of the vocabulary challenges mitigated the traditional dryness of grammar lessons. For example, during the Building Knowledge of the Field stage, the use of charades to teach action verbs activated learning through physical involvement, which promotes a deeper understanding beyond simple definitions (Żywicznyński et al., [2021](#)). Ultimately, this dynamic approach proves that embedding language tasks within a play-oriented approach proves that embedding language tasks within a play-oriented context can substantively shift observed student reluctance into eager, active participation within the targeted parameters of this specific three-week cohort.

Furthermore, the implementation resulted in improved classroom management. By establishing clear rules at the onset, as shown in Table 7, the treasure hunt created a fair and consistent behavioral framework. The reduction in disruptive behavior was attributed to the hands-on nature of the activities which kept students focused on earning points for their respective crews (Puritat, [2019](#)). While leaderboards provided a transparent tracking system for progress, critical observations revealed that this transparency did not inherently disadvantage the lowest-ranked students. Because the point system was team-based rather than individual, it successfully masked individual linguistic failures. This prevented the public demotivation often seen in traditional classrooms and instead fostered a healthy, supportive environment for peer-teaching within the crews.

Customization and integrated feedback were also vital operational contributors to student success. Digital tools like Padlet and Canva allowed for a personalized approach where students progressed through the Modeling and Joint Construction stages at their own pace (Ismiati & Pebriantika, [2020](#)). In the actual classroom setting, this created a highly active environment where the teacher could circulate the room, providing immediate, targeted feedback to specific groups while others worked independently on their digital drafts. This real-time feedback loop between teacher and student, and the lively peer-to-peer editing happening within the crews, served as a highly functional pedagogical equivalent to formal front-of-class instruction. While an experimental control group was intentionally excluded as it contradicts the design of qualitative action-oriented case studies, the observational data and subsequent textual progression confirmed that this peer-mediated environment robustly facilitated language development within this specific classroom context (Chen, [2021](#)). Consequently, this peer mediated classroom condition allowed students to take tangible ownership of their learning and develop the operational autonomy demanded by the Kurikulum Merdeka (Kusumaningrum, [2019](#)).

Pedagogical advantages of the gamified approach

The linguistic growth observed in the comparison between the pre- and post-intervention texts shown in [Table 10](#) and [Table 11](#) indicates a measurable upgrade in communicative competence. Initial texts were characterized by limited control over generic structures, frequently omitting ingredients or writing steps as single run on sentences. For instance, Student A's pre-intervention text lacked proper

capitalization and punctuation, which are typical hurdles for beginner learners (Alamri et al., [2021](#)). However, as students transitioned into the Joint and Independent Construction stages, their post-intervention outputs showed a sophisticated grasp of the Goal-Materials-Steps framework.

Beyond mere grammatical control, gamification profoundly aided students in understanding the social function of the procedure text. By framing the writing task as a critical pirate mission, such as drafting a cleaning guide or instructions for tool maintenance, students practically grasped that the genre's purpose is to provide sequenced information so a reader can successfully perform an activity. The use of adverbial sequences became more consistent because students realized these sequences words were crucial for conveying procedural knowledge effectively to their crewmates (Wu et al., [2022](#)). Students demonstrated refined skills in using imperative sentences, actively applying the social function of giving direct commands to improve text coherence (Kim et al., [2017](#)). This synergy between gamified interaction and linguistic practice suggests that students with higher cognitive development through play produce more well-structured texts (Whalen & Menard, [1995](#)). By doing so, the current intervention actively bridged the gap between theoretical educational practice and practical learner acquisition.

The transition from collective work to individual production was supported by the scaffolding inherent in the narrative. By the time students reached the Independent Construction stage, they had internalized the necessary vocabulary and structural patterns through multiple game-based iterations. The ability to produce a multimodal text, such as the final Canva poster in Figure 16, reflects an integration of literacy, social function awareness, and digital competency.

Challenges and critical pitfalls

Despite the positive outcomes, this classroom research identified several challenges that must be addressed for future implementation. Based on direct observation notes, over-gamification emerged as an early concern when excessive game elements distracted students from the core learning objectives. For example, field notes from the Modeling stage revealed that one specific group rushed haphazardly through a sentence-ordering activity, prioritizing speed to claim the first-place badge while completely ignoring the grammatical accuracy of their sentences. This specific finding of superficial engagement validates broader warnings in the literature from scholars like (Nathan & Hashim, [2023](#)) that points can sometimes overshadow the depth of the material. Additionally, the gathered data noted a mild novelty effect, where initial excitement was incredibly high but required constant innovation of the pirate narrative to maintain momentum in the third week. This behavioral shift practically confirms the risks regarding the fading impact of game elements over time (Rodrigues et al., [2022](#)).

Specific design pitfalls also hindered the experience for some students in this study. Observation noted highlighted that technical issues, such as slow loading times on the Padlet platform and students struggling to read small visual, led to momentary frustration and decreased engagement. These direct classroom realities support previous claims by (Nebrida & Bangud, [2022](#)) that platform glitches are

detrimental to digital interventions. Furthermore, while this intervention was successful, it highlighted that designing such comprehensive frameworks requires high degree of technological proficiency. Therefore, the current study indicates that a lack of teacher technological skill could be a potential barrier for replicating this study in other contexts. Lastly, in line with the theoretical constraints outlined by Mohanty and Christopher ([2023](#)), the difficulty in generalizing effectiveness persists, as individual student progress in this study naturally varied based on personal background and inherent motivation.

Strategic areas for improvement

Moving forward, the study emphasizes the necessity of balanced integration. Game elements must enhance rather than overshadow core objectives to ensure harmonious coexistence between play and education (Nieto-Escamez & Roldan-Tapia, [2021](#)). Accessibility is another critical area, requiring designs that accommodate diverse learning needs and styles (Majdoub, [2022](#)). Training and support for educators are essential to raise awareness of best practices and build the technological competencies necessary for creating these environments (Cabrera et al., [2022](#)). Continuous evaluation involving all stakeholders is required to measure the feasibility and sustainability of gamified curricula (Lee et al., [2022](#)). Endorsement from school leadership is vital to embed these innovative practices permanently within the national curriculum.

CONCLUSION

This study concludes that the implementation of Evidence-Based Practice (EBP) in athletic learning at SDIT Rabani Majalengka has been carried out systematically through the integration of scientific evidence, teachers' professional experience, and the characteristics and needs of students. The application of EBP is reflected in literature-based lesson planning, the use of innovative strategies such as game-based learning and developmentally appropriate practices, and the utilization of simple learning media adapted to the school context. The implementation has proven to have a positive impact on the improvement of students' gross motor skills, as indicated by enhanced coordination, agility, speed, and strength, as well as increased student motivation and participation in the learning process. From the teachers' perspective, EBP supports the design of more structured, adaptive, and contextual learning, despite challenges such as limited facilities and large class sizes. Therefore, EBP can be regarded as an effective and relevant approach to improving the quality of athletic learning and students' gross motor development in elementary schools, while also serving as an innovative solution to address various challenges in physical education.

The primary aim of this research was to examine the efficacy of integrating gamification, specifically a narrative-driven treasure hunt, into the seventh-grade curriculum to improve EFL students' proficiency in composing procedure texts. By successfully aligning game mechanics with genre-based language objectives, the addressed its core research problem, demonstrating how to

transform the classroom from an environment of passive reception into a dynamic space of active participation. The significance of this lies in its contribution to the existing pedagogical literature; it provides a scalable, learner-centered framework that empirically bridges the gap between traditional educational implementation and the interactive acquisition preferences of digital-native students.

Linguistic evidence synthesized from the analysis of student outputs confirms a significant upward trajectory in writing proficiency. The post-intervention outputs shifted from disorganized, run-on sentences to the consistent application of the Goal-Materials-Steps framework. Students demonstrated a nuanced use of the English language by actively utilizing imperative verbs and prepositional temporal sequence markers to ensure procedural instructions flowed logically. Beyond technical writing skills, the intervention fostered observable classroom benefits: the team-based competitive mechanic heightened intrinsic motivation and minimized disruptive behavior, while the collaborative digital drafting process organically developed critical 21st-century skills such as peer-to-peer problem-solving and shared accountability within the crews.

These findings imply a necessary conceptual shift in the educational landscape. Theoretically, the study supports the integration of play-oriented mechanics to fulfill students' psychological needs for autonomy and relatedness within language learning. Practically, it recommends that educators adopt immersive learning experiences that provide students with the agency to explore and experiment with multimodal texts to facilitate this inclusive and equitable learning. Institutions and policymakers must invest directly in the continuous professional development of educators' technological competencies. Furthermore, practical implementation relies heavily on schools providing ready-to-use resources, including standardized gamified lesson plans and access to reliable digital platforms tailored for specific learning objectives.

Despite the positive outcomes, the current study is constrained by three primary limitations. First, instances of over-gamification occasionally distracted students, leading to superficial engagement where point accumulation temporarily overshadowed grammatical accuracy. Second, the intervention experienced a mild novelty effect, requiring constant narrative innovation from the teacher to maintain engagement levels by the final week. Third, technical barriers—such as connectivity issues and the necessity for high teacher technological proficiency—hindered seamless implementation. To address these constraints and build upon the current findings, this study proposes two main recommendations for future research: (1) conducting longitudinal studies over a full academic semester to evaluate the long-term sustainability of gamification against the novelty effect, and (2) replicating the intervention across broader, more diverse demographic samples to test the generalizability of gamified procedure text instruction across varied English proficiency levels.

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