

THE IMPLEMENTATION OF WAYGROUND MEDIA TO EXPLORE STUDENTS' MASTERY OF CONCEPTS IN PROCEDURAL TEXT LEARNING

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Abstrak

This descriptive, qualitative case study examines the depth of students' conceptual understanding of procedural text and their learning perceptions following the implementation of Wayground gamification media. Conducted in Class XI E of MAN 1 Pamekasan, the research identified a critical conceptual gap in the structural component, specifically in the identification and differentiation of materials and tools. Qualitative findings revealed that while Wayground effectively boosts engagement and motivation, its multiple-choice format is more successful in reinforcing linguistic recognition rather than fostering deep structural understanding. The study concludes that the implementation of Wayground necessitates integration with productive tasks to bridge the gap between concept recognition and holistic text production. The qualitative analysis focuses on the implementation stages, from opening to final closing, to reveal the students' cognitive processes.

Keywords: *Conceptual Mastery, Procedural Text, Wayground, Qualitative Case Study, Structural Understanding.*

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INTRODUCTION

Language Education at the Senior High School (SMA/MA) level plays a crucial role in Indonesia's curriculum, which emphasizes the development of functional literacy competencies. Among the various essential text types, procedural texts hold fundamental importance due to their direct application in daily life and professional contexts. It functions as a systematic guide for executing tasks, operating devices, or creating products through a sequential order. (Istikomah, 2009)Mastery of this genre requires students to integrally comprehend its three core components: social function, generic structure (goal, materials, steps), and distinctive language features such as imperative verbs and temporal conjunctions. However, empirical evidence indicates that students often struggle with achieving comprehensive conceptual mastery, particularly in applying structural and linguistic elements coherently in text production. This is consistent with the findings of (Jl & Iskandar, 2024), which highlights that while students' writing abilities are generally categorized as good, the structural aspect of procedural texts often remains the most challenging component to master. This gap is not merely about student performance but signifies a deeper inability to internalize abstract concepts into functional skills. The challenge is frequently exacerbated by conventional, teacher-centered pedagogical methods that fail to sustain student motivation and engagement. (Ramadhan et al., 2025).

This condition was evident in class XI E of MAN 1 Pamekasan. Preliminary observations revealed students' difficulties in producing well-structured procedural texts, low motivation, and a tendency to present disjointed points rather than a cohesive narrative. In response, the

gamification-based platform Wayground was implemented as an intervention to enhance engagement. While an initial implementation showed an improvement in student participation and enthusiasm, this qualitative shift did not fully illuminate the depth of students' conceptual understanding, their specific learning experiences, or the nature of any persisting difficulties (Elfiana et al., 2025)

The fundamental problem in this study lies not only in low student motivation, but also in the suspected disparity in conceptual understanding: students may be able to recognize language features separately, but struggle to understand and apply the hierarchical structure of procedural texts as a whole. The implementation of gamification media, such as Wayground, has the potential to increase engagement, but it is not yet known in depth whether this media is capable of reaching abstract and complex structural understanding through a qualitative lens.

Although previous studies have proven the effectiveness of Wayground in improving learning outcomes, there is a significant research gap regarding how the implementation process of this gamification media is able or unable to deeply touch on aspects of complex text structure hierarchy. Most studies only look at the end result, without analyzing the qualitative cognitive processes of students when interacting with gamification features that cause persistent errors in certain structural components. Therefore, this study, entitled "The Implementation of Wayground Media to Explore Students' Mastery of Concepts in Procedural Text Learning," aims to address the identified qualitative gap through the following research objective:

1. How is the implementation of Wayground media carried out (from opening to final state) to explore students' conceptual mastery?
2. How do students with different performance levels (high, medium, and low) differ in their utilization of Wayground's feedback features to overcome conceptual errors?

RESEARCH METHODOLOGY

Research Design This study employs a descriptive qualitative research design with a single-case study approach. This design was selected to obtain a rich, contextualized, and in-depth exploration of the phenomena under investigation: students' conceptual mastery and their lived experiences with Wayground. The case was bounded by the context of class XI E at MAN 1 Pamekasan during the even semester of the 2024/2025 academic year.

Participants and Informants The subjects of this study were students of Class XI E. Key informants for in-depth interviews were selected using a purposive sampling technique with stratified criteria based on their performance levels during the Wayground sessions. Nine students were chosen, comprising three students from each category: high, medium, and low performance levels. This stratification ensured the representation of diverse understanding levels and patterns of conceptual mastery. Additionally, the Indonesian language teacher was interviewed to gain a pedagogical perspective.

Implementation of Wayground Media. The learning intervention used the Wayground platform by utilizing its main features as follows:

1. **Live Quiz Mode:** Used during synchronous learning to create an engaging and interactive atmosphere.
2. **Leaderboard:** Displayed in real-time to stimulate student engagement and focus.
3. **Instant Feedback:** After answering each question, students immediately received qualitative feedback through brief explanations, facilitating self-regulated learning.
4. **Meme & Music Features:** Customized to reduce anxiety and improve the learning mood.

5. Automatic Reports: Used by researchers to identify patterns of conceptual errors and student participation dynamics.

The activity consisted of questions specifically designed to explore the depth of understanding regarding the three components of procedural text: Social Function, Text Structure (Goal, Materials/Tools, Steps), and Language Features.

Data Collection Techniques: Data were collected through triangulation of the following qualitative methods:

1. In-depth Semi-structured Interview: Conducted with the nine student informants and the teacher. Interview guides focused on probing the reasoning behind conceptual understanding and exploring perceptions of Wayground utility, flow, and effectiveness.
2. Participant Observation: The researcher documented student interactions, participation dynamics, expressions of difficulty, and non-verbal cues during Wayground-integrated learning sessions.
3. Document Analysis: This includes reports from Wayground (identifying common error patterns), student-produced procedural texts, and supporting documents like the Lesson Plan (RPP).

Data Analysis Techniques. The qualitative data were analyzed using the interactive model by Miles, Huberman, and Saldaña (2014), involving three concurrent processes:

1. Data Reduction: The process of selecting, focusing, and simplifying the raw data (interview transcripts and observation notes) to ensure its relevance to the qualitative research focus.
2. Data Display: The presentation of data in the form of narrative descriptions, matrices, or direct quotes to facilitate the process of concluding students' cognitive processes.
3. Conclusion Drawing/Verification: Drawing tentative conclusions based on the identified patterns of mastery and difficulty, followed by verification through the triangulation of techniques.

Research Ethics This study was conducted in strict compliance with the principles of qualitative research ethics, ensuring the confidentiality and privacy of all individuals. The ethical procedures applied include: Informed Consent; Confidentiality and Anonymity (using codes such as P1, P2, etc.); and Voluntary Participation.

Table 1. Implementation Steps of Wayground Media

Stage	Teacher Activity	Student Activity	Objective
Opening	Set up Wayground in <i>Live Quiz Mode</i> and explain learning objectives	Join the game using the provided code or link	Reduce anxiety and create a positive learning atmosphere
Engagement	Monitor the real-time <i>Leaderboard</i> and student interaction	Answer 10 concept-based multiple-choice questions competitively	Enhance extrinsic and intrinsic motivation
Feedback	Facilitate discussion based on <i>Automatic Reports</i>	Analyze instant feedback and brief explanations	Promote self-regulated learning
Closing	Synthesize results through in-depth interviews	Reflect on structural difficulties and conceptual gaps	Consolidate content mastery and identify sources of errors

LITERATURE REVIEW

1. Theoretical Framework of Procedural Text Language learning at the Senior High School level emphasizes the development of functional literacy, requiring students to master various text types. Among these, Procedural Text is indispensable, characterized by its purpose to explain how to do or make something through a series of sequential steps (1994), n.d.).

A procedural text is theoretically built upon three integrated components that must be mastered by students. (Jl & Iskandar, 2024)

- Social Function (Goal): To inform the reader about how to achieve a specific goal.
- Generic Structure: Typically includes a Goal (Title/Introduction), Materials/Tools (optional), and the Steps (a series of actions that must be performed sequentially).
- Language Features: The use of imperative verbs, temporal conjunctions, action verbs, and adverbs to specify time, place, or manner.

Empirical studies consistently highlight that student difficulties in producing procedural texts often stem from an insufficient understanding of structural and linguistic features. (Jauza & Yuhdi, 2022). This indicates that the problem is rooted in the student's conceptual understanding rather than just writing mechanics.

2. Conceptual Understanding and Mastery of Concepts. In the context of learning, Conceptual Understanding refers to the integrated and functional grasp of concepts, principles, and procedures, enabling students to utilize this knowledge flexibly (Firanti et al., 2024). This research focuses on the Mastery of Concepts, defined as the students' capability to internalize and consistently apply the core elements of Procedural Text independently.

The manifestation of poor conceptual understanding is the emergence of Conceptual Errors. These are systematic, persistent misunderstandings of fundamental knowledge. In this study, a conceptual error is observed when students fail to apply logical sequences or misuse critical language features, suggesting a breakdown in theoretical comprehension. This necessitates a qualitative approach to delve into the reasoning behind the errors, which standard assessments cannot reveal.

3. Wayground and Gamification in Education Gamification in education is the application of game design elements (points, badges, leaderboards, and instant feedback) to increase student engagement and motivation. Wayground is a leading gamification platform that leverages these elements, transforming learning activities into engaging experiences. Research has demonstrated that Wayground is highly effective because it:

- Enhances Motivation and Engagement: The competitive element reduces boredom and sustains focus.
- Provides Instant Feedback: Immediate corrective feedback helps students identify and rectify errors, fostering self-regulated learning.
- Improves Recall: Repeated exposure in an enjoyable environment aids in the retention of learned concepts.

4. Game-Based Learning (GBL) and Gamification in English Language Teaching. GBL and gamification approaches, such as those applied by Wayground, offer contextual and interactive learning environments. These media facilitate repetitive practice and create low-risk communication situations (Aprilia & Kunci, 2024). The main advantage of procedural text learning is the ability to simulate step sequences and provide instant feedback on imperative verb choices. However, the challenge lies in transferring the receptive skills trained in the

game into productive skills (writing) that require a holistic and qualitative understanding of text structure.

5. Previous Studies and Research Position. Previous research has focused on the analysis of procedural text challenges (Jauza & Yuhdi, 2022) and the effectiveness of Wayground on student motivation (Al-Jannah et al., 2023; Supriyatin, 2024).

Synthesis and Research Position: The literature review indicates that: (1) Students' difficulties stem from weak structural understanding; (2) Wayground has proven effective in increasing motivation; but (3) there is a research gap that has not qualitatively investigated how the gamification mechanism in Wayground interacts with the formation of deep conceptual understanding, particularly in the hierarchical aspect of text structure. This study aims to fill that gap by using a qualitative case study approach to dissect how and why structural understanding remains a challenge even when using engaging media.

FINDINGS

4.1. Qualitative Patterns of Conceptual Mastery (Wayground Reports) The analysis of student engagement and responses through the Wayground platform revealed several qualitative patterns regarding their conceptual mastery:

- Dominant Mastery in Language Features: Most students demonstrated a high level of proficiency in identifying imperative verbs and linguistic markers. This indicates that gamified identification is highly effective for technical vocabulary.
- General Understanding of Social Function: A significant majority of students could correctly identify the purpose and goal of the procedural texts presented.
- Structural Ambiguity: Students showed consistent hesitation and errors in identifying the specific "Materials and Tools" component. There was a recurring pattern where students confused prerequisite items with the actual action steps.

4.2. Thematic Analysis (Interviews & Observation) Thematic analysis of interview data from 9 key informants and participant observation revealed three main themes:

1. Increased Motivation and Interest: Students (P1, P5, P12) stated that Wayground was "fun" and "sparked enthusiasm" to compete, which was evident from the repeated attempts to engage with the material.
2. Appreciation for Instant Feedback: Students (P3, P8, P15) were greatly helped by the immediate correction feature, which allowed them to recognize and correct errors independently during the process.
3. Acknowledgment of Conceptual Challenges: Several students (P2, P10) explicitly admitted difficulty distinguishing between the "Materials/Tools" section and the "Steps" in the text structure. They tended to combine or arrange them incorrectly. Observation during learning sessions also showed similar confusion when students were asked to identify structural components from example texts.

DISCUSSION

5.1. Effectiveness of Wayground in Increasing Engagement and Basic Mastery The findings of high motivation (Theme 1) and mastery of language features are in line with previous research confirming that gamification elements in Wayground are effective in reducing boredom and improving memory retention for identification-based materials. Instant feedback (Theme 2) also supports the self-regulated learning theory, as revealed by

Based on the analysis at each stage (state), it was found that at the Opening stage, the three categories of informants (High, Medium, Low) had one thing in common: a significant increase in motivation. However, a striking difference emerged in the Feedback stage; high-ability students (such as P1) used instant explanations to improve their logic, while low-ability students (such as P2 and P12) tended to focus only on their position on the leaderboard. This concludes that although Wayground was successful affectively, there were limitations in effectively building a text hierarchy scheme independently for students at the lower-middle level.

5.2. Structural Understanding Gap: Beyond the Reach of Multiple-Choice Format However, the main finding regarding the weak understanding of "Materials/Tools" and students' acknowledgment of difficulties (Theme 3) confirms and deepens the findings of Ulfa & Rasyid (2017). This study reveals the root of the problem: a cognitive inability to distinguish the "prerequisite" phase (materials) from "execution" (steps). This indicates the limitations of Wayground's multiple-choice format, which tends to test elements in isolation (fragmentary), not the hierarchical relationships between them. As stated by Hiebert & Carpenter (1992), true conceptual understanding requires the construction of an integrated cognitive schema.

5.3. Pedagogical Implications: Integration with Productive Tasks. Therefore, although Wayground excels as a drill & practice tool, it is not sufficient as a cognitive tool for constructing an understanding of complex text structures. The implication is that a hybrid learning design is needed that integrates the advantages of Wayground (motivation, quick feedback) with open-ended and productive tasks, such as writing complete procedural texts or arranging step cards in sequence.

CONCLUSION

Based on the findings and discussion, it can be concluded that:

1. Implementation Stage: The implementation of Wayground successfully increased motivation and engagement across all learning stages. However, the qualitative depth of learning was more prominent in high-achieving students who utilized the feedback feature for logical correction.
2. Conceptual Mastery: The research successfully uncovered a deeper cognitive root problem: a persistent difficulty in distinguishing structural components (Materials vs. Steps). This conceptual gap remains even when student motivation is high.
3. Platform Limitations: The multiple-choice format on gamification platforms like Wayground is highly effective for linguistic recognition but has inherent limitations in training hierarchical thinking and holistic text production skills.
4. Pedagogical Recommendation: It is essential to design blended learning that combines Wayground for engagement with productive, open-ended tasks (such as manual text writing or creative projects) to build comprehensive structural understanding.

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