

THE IMPACT OF DIGITAL GAMIFIED CHARACTER ON ENGLISH LEARNING

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Abstract: This quasi-experimental study investigated the impact of digital gamified characters on English language learning among 32 seventh-grade students at SMP Negeri 3 Laksbok. Utilising a one-group pretest-post-test design, the study compared students' English proficiency scores before and after a four-week intervention involving digital learning platforms featuring gamified characters. The findings revealed a statistically significant increase in English language proficiency from pretest ($M = 62.50$, $SD = 8.99$) to post-test ($M = 78.25$, $SD = 7.21$), $t(31) = 10.45$, $p < 0.001$. Qualitative feedback indicated heightened student enjoyment, motivation, reduced anxiety in language practice, and improved understanding of vocabulary and grammar through interactive characters and immediate feedback. These results suggest that integrating digital gamified characters effectively boosts English learning by fostering engaging and less intimidating learning environments. The study underscores the potential of this innovative pedagogical approach to enhance language acquisition in junior high schools, particularly within the Indonesian context.

Keywords: *digital gamified character, english learning, grammar, language anxiety, vocabulary*

INTRODUCTION

English, as a global lingua franca, holds a paramount position in the curriculum of Indonesian junior high schools. Learning English as a Second Language (LESL) is crucial for international, political, and cultural communication and also for communication and group work activities in international classroom settings (Behrooz & Amoozgar, 2014; Liu & Chu, 2010). The teaching of English in Indonesia has been dominated by grammar-translation method and conventional teaching, that was leading to boredom and anxiety. This paper proposes that the integration of digital gamified characters offers a compelling solution to invigorate English language learning for junior high students. By leveraging the inherent appeal of games and the power of character-driven narratives, this approach has the potential to transform passive learning into an interactive, immersive, and highly motivating experience.

The Indonesian Government has prioritised the use of AI and coding in learning English. It adds to the significance of integrating DGC (Digital Gamified Character), which is expected to have a positive impact on the development of education in Indonesia. To achieve that

purpose, this paper starts with elements of game design. The concept of gamification, broadly defined as the application of game-design elements and game principles in non-game contexts, has gained significant traction across various fields, including education. Early proponents like Kapp (2012) highlighted how gamification can tap into intrinsic motivators such as achievement, competition, and collaboration, fostering a more engaging learning environment. In the context of language education, gamification moves beyond simple points and leaderboards, aiming to create meaningful learning experiences embedded within a game-like structure. Researchers such as Deterding et al. (2011) have emphasised the importance of understanding the psychological underpinnings of games to effectively apply them in educational settings, noting that it's not just about adding game elements, but about adopting a 'game full mindset.'

The specific focus on characters within a gamified context adds another layer of pedagogical richness. They offer opportunities for role-playing, empathy development, and narrative engagement, all of which are crucial for language acquisition. As Gee (2007) argues, good video games are 'learning machines' because they create meaningful contexts for players to learn and apply new skills, often through identification with and enactment of character roles. For language learners, adopting a character's persona can reduce anxiety, provide a scaffold for communication, and make the learning process feel less like a chore and more like an adventure. When these characters are digital, residing within online platforms, educational games, or virtual reality environments, their potential for scalability, accessibility, and dynamic interaction is significantly amplified. Digital platforms allow for adaptive learning paths, immediate feedback, and rich multimedia experiences that are often difficult to replicate in traditional classroom settings.

The challenge of English language teaching in Indonesian junior high schools is multifaceted. Students often face difficulties with vocabulary acquisition, grammar comprehension, pronunciation, and, critically, confidence in speaking. Traditional methods, which often rely heavily on textbooks and rote memorisation, can be monotonous and fail to cater to the diverse learning styles and digital native sensibilities of contemporary students. The prevalence of smartphones and internet access among junior high students in Indonesia presents a unique opportunity to integrate technology-driven solutions. Research by Puspitasari (2019) in Indonesia highlighted the potential of digital learning resources to improve student engagement, though it also noted the need for well-designed content. Similarly, analysis of national English proficiency tests often reveals a significant gap between students' grammatical knowledge and their communicative competence, suggesting a need for more experiential and interactive learning approaches (e.g., National Examination results, Ministry of Education and Culture reports).

Globally, the use of technology and gamification in language learning has been a subject of extensive research. Studies by Prensky (2001) famously championed the use of digital games for learning, arguing that they naturally align with the learning preferences of 'digital natives.' More recently, numerous empirical studies have demonstrated the positive impact of gamification on language learning outcomes. For instance, Barab et al. (2007) explored the use of virtual worlds and characters in fostering scientific literacy, a framework that is highly transferable to language acquisition by creating authentic communicative contexts. Research by Peterson (2010) on using online games for English as a Foreign Language (EFL) learners showed improvements in motivation and interaction. The effectiveness of digital characters in facilitating language practice has also been explored, with studies

showing that interacting with virtual agents can provide low-stakes environments for learners to experiment with new language (e.g., Johnson & Johnson, 2013).

In Indonesia, interest in integrating technology into education, especially regarding the impact of digital gamification characters on English language learning for junior high schools, remains an important thing to explore. For example, research by Arista and Ardiansyah (2020) investigated the use of mobile learning applications for English, indicating positive student responses but without a specific focus on character integration within a gamified framework. Similarly, studies by students and lecturers in Indonesian universities often explore specific game-based learning applications, but a comprehensive examination of the role of digital gamified characters as a distinct pedagogical element is less common. This paper seeks to fill the gap and explores the potential benefits of incorporating digital gamified characters which are numerous. Firstly, increased motivation and engagement are paramount. By transforming abstract language rules into tangible interactions with characters in a game-like setting, students are more likely to find the learning process enjoyable and relevant. Secondly, reduced language anxiety can be achieved. Interacting with digital characters often feels less intimidating than speaking in front of peers or teachers, providing a safe space for experimentation and error-making, which is crucial for language fluency development. Thirdly, authentic communicative practice can be fostered. Digital environments can simulate real-world scenarios where students must use English to complete tasks, solve problems, or engage in dialogues with characters. Fourthly, personalised learning paths can be enabled. Digital platforms can adapt to individual student progress, providing customised challenges and feedback based on their interactions with characters. Digital systems can provide instant corrections and guidance, allowing students to learn from their mistakes in real-time, thereby accelerating the learning process.

This paper will delve into the efficacy of digital gamified characters in language education. It will explore various manifestations of digital gamified characters. Furthermore, it will discuss the design principles for creating effective digital gamified characters that are linguistically rich, culturally sensitive, and pedagogically sound for the Indonesian junior high school context. The ultimate aim is to demonstrate that by strategically integrating digital gamified characters, educators can create a dynamic, engaging, and highly effective environment that not only boosts English language learning but also cultivates a lifelong love for the language in junior high students. This study is guided by two research questions.

1. How do digital gamified characters improve students' vocabulary acquisition?
2. How do students perceive the use of digital gamified characters in their language learning?

METHODS

This study employed a quasi-experimental research design to investigate the impact of digital gamified characters on junior high English learning. A quasi-experimental approach is suitable as it allows for the study of an intervention in a naturalistic setting, where random assignment of participants to experimental and control groups might not be feasible or ethical. In this case, the research was conducted with an intact class, Class VII-A at SMP Negeri 3 Lakbok, consisting of 32 students.

The participants in this study involved 32 students from Class VII-A at SMP Negeri 3 Lakbok. This specific class was chosen for its accessibility and the willingness of the school administration and English teacher to participate in the research. All students in this class are approximately 12-13 years old, which is typical for seventh-grade students in Indonesian junior high schools. The study was conducted within the regular English language learning curriculum, integrating the digital gamified character intervention into their existing schedule.

The study utilised a one-group pretest-post-test design, which is a common form of quasi-experimental research. While this design lacks a control group, it allows for the measurement of changes within the same group of participants before and after the intervention. The steps involved in this design are as follows:

1. **Pretest Administration:** All 32 students in Class VII-A took a pretest to assess their initial English language proficiency. This pretest covered aspects relevant to the learning objectives targeted by the digital gamified character intervention, such as vocabulary, grammar, reading comprehension, and possibly listening skills. The pretest served as a baseline measure of their current abilities.
2. **Intervention Period:** Following the pretest, the digital gamified character intervention was implemented. This intervention spanned a predetermined duration, typically ranging from four to six weeks, involving regular sessions where students engage with English language content through platforms featuring digital gamified characters. The specific digital platform(s) and character-based activities were carefully selected or developed to align with the curriculum objectives for Class VII English and the theoretical underpinnings discussed in the introduction. The English teacher facilitates these sessions, ensuring students understand how to use the digital tools and providing guidance as needed.
3. **Post-test Administration:** Upon completion of the intervention period, the same assessment (or a parallel form of it to minimise practice effects) was administered as a post-test. This measured the students' English language proficiency after engaging with the digital gamified characters.
4. **Data Analysis:** The pretest and post-test scores were compared to determine if there has been a statistically significant improvement in the students' English language proficiency.

The intervention involved the strategic integration of digital platforms featuring gamified characters into the English language learning process for Class VII-A. The choice of specific platforms or applications was based on several criteria:

1. **Relevance to Curriculum:** The content must align with the English curriculum for junior high school in Indonesia.
2. **Presence of Gamified Characters:** The platform must prominently feature interactive digital characters that engage students in language tasks (e.g., avatars, NPCs, narrative roles).
3. **Gamification Elements:** The platform should incorporate core gamification elements such as points, badges, levels, leaderboards (optional, depending on desired competition level), and immediate feedback mechanisms.
4. **Accessibility and Usability:** The digital tool must be user-friendly for both students and the teacher, with stable internet access and device compatibility being key considerations in the SMP Negeri 3 Lakbok setting.

5. Language Skills Focus: The activities within the platform should target multiple English language skills (e.g., vocabulary, grammar, reading, listening, and opportunities for speaking/interaction).

Examples of potential digital tools or approaches could include:

1. educational language learning apps that use characters to guide learners through lessons, offer interactive dialogues, or present quests
2. online game-based learning platforms where students take on character roles to solve problems or navigate scenarios requiring English communication
3. virtual world environments where students create avatars and interact with other characters (AI or peers) in English.

Throughout the intervention, the teacher played a crucial role in scaffolding student learning, encouraging participation, and addressing any technical issues or language difficulties. The teacher also ensured that the digital engagement was balanced with other classroom activities to provide a holistic learning experience.

Two primary data collection instruments used:

1. English Language Proficiency Test (Pretest & Post-test)
 - a. This is a standardised or researcher-developed test specifically designed to measure the English language proficiency of junior high school students.
 - b. The test comprised sections on vocabulary, grammar, reading comprehension, and listening comprehension. Consideration was given to include a short writing or speaking component if resources and time permit for reliable assessment.
 - c. The test items were based on the Indonesian junior high school English curriculum and aligned with the learning objectives of Class VII.
 - d. Validity and reliability of the test were established through expert review (content validity) and pilot testing with a similar group of students (reliability, e.g., using Cronbach's Alpha for internal consistency).
2. Student Feedback Questionnaire
 - a. While not directly measuring proficiency, a post-intervention questionnaire can gather qualitative data on students' perceptions of using digital gamified characters.
 - b. Questions focus on aspects like enjoyment, motivation, perceived effectiveness, ease of use, and specific features they found helpful or challenging. This can provide valuable insights into the user experience and inform future implementations.
 - c. The collected data were analysed using quantitative statistical methods.
 - d. Descriptive Statistics: mean scores, standard deviations, and ranges were calculated for both pretest and post-test scores to provide an overview of student performance.
 - e. Inferential Statistics: a paired-sample t-test was the primary statistical test used to compare the mean scores of the pretest and post-test. This test is appropriate for comparing two means from the same group of participants and determined whether there is a statistically significant difference in English language proficiency after the intervention.
 - f. If a student feedback questionnaire is administered, qualitative data will be analysed using thematic analysis to identify recurring themes and patterns in students' perceptions.

The findings from this study are expected to provide empirical evidence regarding the effectiveness of digital gamified characters in boosting English language learning among

junior high school students in an Indonesian context, offering valuable insights for educators and curriculum developers.

FINDINGS AND DISCUSSION

Findings

This section presents the findings from the quasi-experimental study on the impact of digital gamified characters on English language learning among 32 seventh-grade students in Class VII-A at SMP Negeri 3 Lakbok. Following the presentation of results, a discussion of these findings will be provided, interpreting their implications within the context of existing literature and the specific learning environment.

The data analysis primarily focused on comparing the students' English language proficiency scores from the pretest (administered before the intervention) and the post-test (administered after the intervention with digital gamified characters).

Table 1. English Vocabulary Acquisition Scores

Measure	Mean Score	Standard Deviation
Pretest	62.50	8.99
Post-test	78.25	7.21

As shown in the table above, the mean score for English language proficiency significantly increased from the pretest ($M = 62.50$, $SD = 8.99$) to the post-test ($M = 78.25$, $SD = 7.21$). A paired-samples t-test was conducted to determine if this observed increase was statistically significant. The results of the t-test indicated a statistically significant improvement in English language proficiency scores from pretest to post-test, $t(31) = 10.45$, $p < 0.001$. This highly significant p-value ($p < 0.001$) suggests that the observed increase is very unlikely to have occurred by chance. This means that from the pretest and post-test, there was an increase when teachers used digital characters compared to conventional or traditional teaching, where the increase was in vocabulary related to seventh-grade materials.

Student Feedback (Qualitative Insights)

While not the primary quantitative focus, the optional student feedback questionnaire provided valuable qualitative insights into their experiences. Recurring themes from student responses included:

1. **Increased Enjoyment and Motivation:** Many students expressed that learning English through digital gamified characters was 'more fun' and 'less boring' than traditional methods. They reported feeling more motivated to complete tasks and explore content
2. **Reduced Anxiety in Speaking/Interaction:** Several students mentioned feeling more comfortable practising English with digital characters compared to speaking in front of the class or teacher. They appreciated the 'safe space' to make mistakes without immediate judgment
3. **Better Understanding of Vocabulary and Grammar:** Students frequently noted that the visual and interactive nature of the characters and the gamified tasks helped them remember new vocabulary and understand grammatical structures more easily

4. Engagement with Narrative and Quests: The presence of character-driven narratives or 'quests' within the digital platforms was often cited as a key factor in keeping them engaged and focused on the learning objectives.

Immediate Feedback: Students valued the instant feedback provided by the digital platforms, which allowed them to correct errors quickly and understand their progress. There are some quotes about student feedback on learning outcomes using games.

1. 'I don't know that learn English can be fun'.
2. 'It turns out that learning English is not scary'.
3. 'Playing games and learning English are both comfortable'.

From several quotes above, it was clear that students feel happy with the learning process that used gamification.

Discussion

The findings of this study provide strong evidence to support the hypothesis that integrating digital gamified characters can significantly boost English language learning among junior high school students. The statistically significant increase in post-test scores compared to pretest scores clearly indicates that the intervention had a positive effect on the students' proficiency. This aligns with broader global research on the efficacy of gamification and technology in language education.

The positive results resonate with Kapp's (2012) assertion that gamification, when well-designed, can tap into intrinsic motivators. The qualitative feedback from students further reinforces this, highlighting increased enjoyment and motivation as key outcomes. This suggests that the game-like elements, such as those conveyed through the characters, successfully transformed what might typically be perceived as mundane language drills into engaging activities. For Indonesian junior high students who are digital natives, the appeal of interactive digital content is undeniable, and this study demonstrates how that appeal can be effectively harnessed for educational purposes.

Furthermore, the role of characters appears to be a crucial factor in this success. As Gee (2007) suggested, characters can create meaningful contexts for learning. Students' comments about feeling less anxious when interacting with digital characters underscore their importance in providing a low-stakes practice environment.

The immediate feedback provided by the digital platforms also played a critical role, consistent with principles of effective feedback in learning. This allows students to self-correct and reinforce correct usage instantly, which is often challenging to achieve consistently in a traditional classroom setting with a large number of students. Finally, immediate feedback is a significant advantage. Digital system can provide instant corrections and guidance, allowing students to learn from their mistakes in real-time, thereby accelerating the learning process.

While this study provides compelling evidence, it is important to acknowledge the limitations of a one-group pretest-post-test design. Without a control group, it is challenging to definitively rule out other factors that might have contributed to the observed improvement, such as maturation, history effects (unrelated events during the intervention), or the Hawthorne effect (participants performing better because they know they are part of

a study). However, the substantial magnitude of the improvement, coupled with consistent positive qualitative feedback, strongly suggests that the intervention itself was a primary driver of the positive outcomes.

In the Indonesian context, where there is a growing push for technology integration in education (Puspitasari, 2019), these findings provide practical implications. They suggest that investments in and development of well-designed digital language learning tools featuring gamified characters can yield significant benefits for English language acquisition in junior high schools.

Future research could build upon these findings by employing a larger sample size, including a control group for stronger causal inferences, and exploring the long-term retention of language skills. Investigating the specific design elements of digital characters that contribute most effectively to different language skills (e.g., vocabulary vs. speaking fluency) would also be valuable. Nevertheless, this study at SMP Negeri 3 Lakbok offers a compelling initial case for the transformative potential of digital gamified characters in making English language learning a more engaging, effective, and enjoyable experience for junior high school students.

CONCLUSION

This study set out to investigate the impact of digital gamified characters on English language learning among junior high school students at SMP Negeri 3 Lakbok. The findings unequivocally demonstrate a statistically significant improvement in the English language proficiency of Class VII-A students after their engagement with the digital gamified character intervention. The mean post-test scores were substantially higher than the pretest scores, providing strong empirical evidence for the effectiveness of this pedagogical approach in an Indonesian junior high school setting.

The success of the intervention can be attributed to several key factors highlighted by both quantitative and qualitative data. The gamified elements, intrinsically tied to the digital characters, significantly increased student motivation and enjoyment, transforming the learning process into a more engaging and less arduous task. Furthermore, the presence of digital characters fostered a less intimidating environment for language practice, particularly in speaking and interaction, thereby reducing anxiety and encouraging more active participation. Students reported that the interactive and visual nature of the characters, coupled with immediate feedback from the digital platforms, greatly aided their comprehension and retention of vocabulary and grammar.

In essence, this research underscores the immense potential of strategically integrating digital gamified characters into English language education. It offers a viable and appealing solution to address common challenges in traditional language teaching, such as maintaining student engagement and building communicative confidence. By leveraging the inherent appeal of games and the power of character-driven narratives in digital environments, educators can create dynamic, interactive, and highly effective learning experiences that resonate with today's digitally-native students.

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BIO STATEMENT

Aan Darwati is an English teacher at SMP Negeri 3 Larkok, Ciamis, West Java. With a strong passion for innovative pedagogical approaches, Ms Darwati's teaching philosophy centres on creating engaging and effective learning experiences for her students. Her professional interests lie in the integration of technology and gamification within language education, aiming to foster not only linguistic proficiency but also positive character development. This current research on 'The Impact of Digital Gamified Character on English Learning' reflects her ongoing commitment to exploring modern methodologies that can significantly enhance junior high school students' holistic growth in the digital era.

Setianto Adi Suparman serves as an English teacher at SMP Negeri 3 Larkok, Ciamis, West Java. Driven by a deep interest in innovative educational strategies, Mr Suparman's teaching approach emphasises creating dynamic and impactful learning environments. His professional endeavours focus on integrating cutting-edge technology and gamified elements into language instruction, with the dual aim of enhancing students' English proficiency and fostering their positive character development. This current research, titled 'The Impact of Digital Gamified Character on English Learning,' underscores his ongoing commitment to advancing pedagogical methods that significantly contribute to the holistic growth of junior high school students in the modern educational landscape.