



Using Stardew Valley to Enhance EFL Reading Skills in Vocational Education

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Abstract: Reading comprehension remains a major challenge for Indonesian vocational students learning English as a Foreign Language (EFL), partly because conventional instruction often fails to promote engagement. This study investigated the effectiveness of *Stardew Valley*, a commercial farming simulation game, as an authentic digital learning medium to improve EFL reading comprehension. A pre-experimental one-group pretest-posttest design was employed involving 36 tenth-grade vocational students. Participants completed a pretest, engaged in a structured 50-minute gameplay session emphasizing dialogue, quest instructions, and contextual reading tasks, and then completed a posttest. Reading comprehension was measured using a validated 25-item multiple-choice test. The findings revealed that the mean score increased from 55.00 to 66.94. A paired-samples *t*-test indicated a statistically significant improvement, $t(35) = 9.580$, $p < 0.001$, with a large practical effect (Cohen's $d = 1.597$). These findings demonstrate that integrating commercial digital games into EFL instruction can effectively enhance reading comprehension while fostering greater learner engagement in vocational education.

Abstrak: Kemampuan membaca pemahaman masih menjadi tantangan bagi peserta didik sekolah menengah kejuruan dalam pembelajaran Bahasa Inggris sebagai Bahasa Asing (EFL), terutama karena pembelajaran konvensional sering kurang mampu meningkatkan keterlibatan belajar. Penelitian ini bertujuan mengkaji efektivitas *Stardew Valley*, sebuah permainan simulasi pertanian komersial, sebagai media pembelajaran autentik untuk meningkatkan kemampuan membaca pemahaman EFL. Penelitian menggunakan desain pra-eksperimen *one-group pretest-posttest* yang melibatkan 36 peserta didik kelas X SMK. Peserta mengikuti pretest, sesi permainan terstruktur selama 50 menit yang berfokus pada dialog, instruksi misi, dan aktivitas membaca kontekstual, kemudian mengerjakan posttest. Kemampuan membaca diukur menggunakan tes pilihan ganda berjumlah 25 butir yang telah divalidasi. Hasil penelitian menunjukkan rata-rata skor meningkat dari 55,00 menjadi 66,94. Uji *paired-samples t-test* menunjukkan peningkatan yang signifikan secara statistik, $t(35) = 9,580$, $p < 0,001$, dengan ukuran efek yang besar (Cohen's $d = 1,597$). Temuan ini menunjukkan bahwa integrasi permainan digital komersial dapat meningkatkan kemampuan membaca pemahaman sekaligus memperkuat keterlibatan belajar peserta didik SMK.

A. Introduction

Reading comprehension is widely recognized as one of the most fundamental competencies in contemporary education because it enables learners to acquire knowledge, construct meaning, and participate effectively in academic and professional communities. In English as a Foreign Language (EFL) context, this competency becomes even more essential because English functions as the dominant language of science, technology, and international communication. Consequently, limited reading comprehension restricts students' access to global knowledge and academic resources. Reading is not merely the ability to decode written symbols but a complex cognitive process involving decoding, inferencing, integrating prior knowledge, and critically evaluating textual information (Grabe & Stoller, 2020). Therefore, developing reading comprehension remains a primary objective of EFL instruction across educational levels (Ur, 2020).

Despite its importance, reading achievement among Indonesian students remains unsatisfactory. According to the Programme for International Student Assessment (PISA) 2022, Indonesian students obtained an average reading literacy score of 359, substantially below the OECD average of 476 (OECD, 2023). These findings indicate persistent weaknesses in students' ability to comprehend, interpret, and evaluate written texts. Previous studies have demonstrated that reading comprehension is influenced not only by linguistic competence but also by motivational and self-regulated learning factors. For instance, Li & Gan (2022) reported that reading motivation and self-regulated reading strategies were among the strongest predictors of EFL reading achievement. Indeed, research has shown that a majority of K-8 teachers already incorporate digital games into classroom instruction, reflecting the widespread acceptance of game-based approaches in education (Takeuchi & Vaala, 2014). Consequently, improving reading instruction requires learning environments that simultaneously foster cognitive engagement and learner motivation.

The challenge is even greater in Indonesian vocational high schools (*Sekolah Menengah Kejuruan* [SMK]), where English receives relatively limited instructional attention compared with vocational subjects. Many vocational students perceive English reading as having little relevance to their future careers, resulting in low engagement during classroom activities. Rather than viewing reading as a meaningful learning process, students frequently complete reading tasks merely to satisfy instructional requirements. Sabiq (2023) found that motivational orientation and school context significantly influence Indonesian EFL learners' engagement with English learning activities. This suggests that reading disengagement among vocational students is not merely an individual problem but also reflects broader instructional and contextual issues.

These issues were also evident at the present research site. Preliminary classroom observations conducted in a vocational high school in Central Java revealed that tenth-grade students consistently experienced difficulties in identifying main ideas, inferring vocabulary meaning from contextual clues, and locating specific information in English texts. These weaknesses were reflected in the pretest mean score of 55.00, which was below the school's minimum competency standard. Similar findings were reported by Lamb & Arisandy (2020),

who argued that Indonesian learners become more actively engaged when English learning is situated within personally meaningful and authentic contexts. The preliminary findings therefore suggest that conventional reading instruction has not yet provided learning experiences that sufficiently motivate vocational students to engage deeply with English texts.

One instructional approach that has gained increasing attention for addressing these challenges is Game-Based Learning (GBL). Constructivist learning theory proposes that learners develop knowledge more effectively when they actively interact with meaningful learning environments connected to their experiences and goals (Plass et al., 2020). Similarly, situated learning theory argues that knowledge acquisition becomes more meaningful when learning occurs within authentic contexts where language serves functional purposes (Reinhardt, 2023). In addition, gamification theory suggests that game elements, such as immediate feedback, clear objectives, progressive challenges, and enjoyable interactions, enhance learner motivation and persistence throughout the learning process (Zainuddin et al., 2020; Dehghanzadeh et al., 2021). These theoretical perspectives collectively indicate that digital games possess considerable potential to support EFL reading development.

Empirical evidence has increasingly supported these theoretical assumptions. Matyakhan et al (2024) demonstrated that game-integrated instruction significantly improved reading comprehension and learner engagement among Thai EFL university students. Likewise, Wang et al (2024), through a systematic review, concluded that game-based reading activities consistently outperformed conventional reading instruction in improving comprehension outcomes. Acquah & Katz (2020) similarly reported positive effects of digital game-based learning on language achievement across different educational levels, while Kaban (2021) found that gamified digital reading environments reduced reading anxiety and promoted greater learner participation. Babaie (2022) also demonstrated that game-based reading strategy training effectively improved L2 reading ability development. Castillo-Cuesta (2022) similarly reported that using Genially games enhanced EFL reading and writing skills in online educational contexts. Collectively, these findings indicate that digital game-based learning provides a promising instructional approach for enhancing EFL reading comprehension.

Nevertheless, several important research gaps remain. First, most previous studies have examined purpose-built educational games or gamification platforms, whereas the educational potential of commercial entertainment games as authentic reading environments has received considerably less attention. Second, existing studies involving commercial games have predominantly focused on vocabulary acquisition rather than reading comprehension (Calvo-Ferrer & Belda-Medina, 2021; Alhebshi & Gamlo, 2022; Chowdhury et al., 2024). Third, the majority of previous investigations have been conducted in higher education or general secondary education, leaving Indonesian vocational high school students substantially underrepresented despite their unique learning characteristics and motivational challenges. Syahrurah (2023) and Angelica & Afriani (2024) similarly highlighted the limited exploration of game-based interventions specifically designed for

Indonesian EFL learners. Finally, to the best of the authors' knowledge, no previous study has investigated *Stardew Valley* as an authentic medium for improving EFL reading comprehension among Indonesian vocational students.

Accordingly, this study offers three principal novelties. First, it employs *Stardew Valley* (ConcernedApe, 2016), a commercial farming simulation game, as an authentic reading environment rather than using a purpose-built educational application. Second, unlike previous studies that primarily investigated vocabulary acquisition, this study focuses specifically on reading comprehension as the principal learning outcome. Third, the study examines Indonesian vocational high school students, a learner population that has received limited scholarly attention in digital game-based language learning research. Throughout gameplay, students continuously interact with authentic English texts, including character dialogues, quest instructions, item descriptions, and contextual narratives, thereby creating meaningful opportunities for authentic language exposure.

Based on these research gaps and novelties, this study addresses the following research question (RQ): *Does a structured game-based learning intervention using Stardew Valley significantly improve EFL reading comprehension among tenth-grade vocational high school students?* By answering this question, the study contributes to the growing body of literature on commercial game-based language learning, extends current knowledge regarding authentic digital reading environments, and provides empirical evidence for integrating commercial video games into English instruction in Indonesian vocational education.

B. Method

This study employed a quantitative approach using a pre-experimental one-group pretest-posttest design to investigate the effectiveness of *Stardew Valley* in improving English as a Foreign Language (EFL) reading comprehension among vocational high school students. This design was selected because it allows researchers to measure changes in participants' achievement before and after a learning intervention within the same group, making it appropriate for exploratory classroom-based studies (Creswell & Creswell, 2023).

The research was conducted during the 2025/2026 academic year at a vocational high school in Central Java, Indonesia. The participants consisted of 36 tenth-grade students from the Computer and Network Engineering (TKJ A) program, selected through purposive sampling. This class was chosen because students possessed sufficient digital literacy to participate in game-based learning activities and had previously demonstrated relatively low performance in English reading comprehension based on classroom observations and teacher assessments.

Reading comprehension was assessed using a 25-item multiple-choice test covering four indicators: identifying main ideas, locating specific information, inferring vocabulary meaning from context, and drawing conclusions from written texts. Each correct response received four points, yielding a maximum score of 100. Prior to implementation, the instrument was evaluated by two experts in English education to establish content validity. Item validity was subsequently examined using the Pearson Product-Moment correlation,

while internal consistency reliability was assessed using Cronbach's Alpha, producing a coefficient of 0.82, indicating good reliability.

The intervention was completed during a single 90-minute instructional session consisting of three sequential phases. Students first completed a 20-minute pretest to determine their initial reading comprehension level. They then participated in a 50-minute structured gameplay session using *Stardew Valley*. Throughout gameplay, students completed guided reading worksheets requiring them to interpret character dialogues, quest instructions, item descriptions, and seasonal narratives while inferring vocabulary from contextual clues rather than direct translation. The teacher functioned solely as a facilitator during the learning process. Finally, students completed a 20-minute posttest using the same reading comprehension instrument administered before the intervention.

Data analysis was conducted using IBM SPSS Statistics. Descriptive statistics were calculated to summarize students' performance. The normality assumption was examined using the Shapiro-Wilk test, followed by a paired-samples *t*-test to determine whether the difference between pretest and posttest scores was statistically significant at the 0.05 significance level. To evaluate the magnitude of the intervention, Cohen's *d* and eta-squared (η^2) were calculated, while the normalized gain (N-Gain) proposed by Hake (1998) was used to determine the educational effectiveness of the treatment. Ethical principles were maintained by informing participants about the purpose of the study, obtaining voluntary participation, ensuring anonymity, and confirming that participation had no influence on students' academic grades.

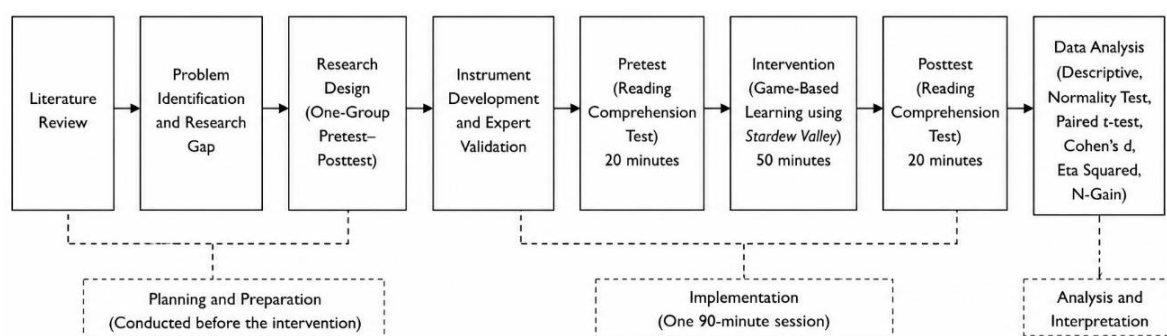


Figure 1. Research Flow

C. Result

This section presents the findings of the study to answer the research question: Does a structured game-based learning intervention using *Stardew Valley* significantly improve EFL reading comprehension among tenth-grade vocational high school students? The findings are organized into descriptive statistics, assumption testing, hypothesis testing, effect size analysis, and normalized gain analysis.

Descriptive Statistics

Table 1 presents the descriptive statistics of students' reading comprehension scores before and after the intervention.

Table 1. Descriptive Statistics

Test	Mean	SD	N
Pretest	55.00	13.357	36
Posttest	66.94	11.630	36

The descriptive results indicate an increase in students' reading comprehension following the *Stardew Valley* intervention. The mean score increased from 55.00 in the pretest to 66.94 in the posttest, representing an average improvement of 11.94 points. Furthermore, the standard deviation decreased from 13.357 to 11.630, indicating that students' achievement became more homogeneous after the intervention. These descriptive findings provide initial evidence that the game-based learning session positively influenced students' reading comprehension performance.

Assumption Testing

Before testing the research hypothesis, the normality assumption was examined using the Shapiro–Wilk test.

Table 2. Shapiro–Wilk Normality Test

Variable	Statistic	df	Sig.
Pretest	0.968	36	0.358
Posttest	0.961	36	0.231
Difference Score	0.956	36	0.161

Note. Data are normally distributed when $p > .05$.

The Shapiro–Wilk results showed that all significance values exceeded 0.05, indicating that the pretest scores, posttest scores, and difference scores were normally distributed. Therefore, the assumption for conducting a paired-samples *t*-test was satisfied.

Hypothesis Testing

To answer the research question, a paired-samples *t*-test was performed to compare students' reading comprehension scores before and after the intervention.

Table 3. Paired-Samples *t*-Test

Comparison	Mean Difference	SD	SE	95% CI Lower	95% CI Upper	<i>t</i>	df	<i>p</i>
Pretest – Posttest	-11.944	7.480	1.247	-14.476	-9.413	-9.580	35	< .001

Note. Significant at $\alpha = .05$.

The analysis revealed a statistically significant improvement in students' reading comprehension after participating in the *Stardew Valley*-based learning session, $t(35) = 9.580$, $p < .001$. The mean difference between the pretest and posttest scores was 11.94, with the 95% confidence interval ranging from -14.476 to -9.413 , which did not include zero. Consequently, the null hypothesis was rejected.

These findings directly answer the research question by demonstrating that a structured game-based learning intervention using *Stardew Valley* significantly improves EFL reading comprehension among tenth-grade vocational high school students.

Practical Significance of the Intervention

Statistical significance alone does not indicate the educational importance of an intervention. Therefore, effect size analysis was conducted using Cohen's d and eta-squared (η^2).

Table 4. Effect Size

Effect Size	Value	Interpretation
Cohen's d	1.597	Large
Eta-squared (η^2)	0.724	Large

Note. Interpretation based on Cohen (1988): $d \geq 0.80$ = large effect; $\eta^2 \geq 0.14$ = large effect.

The intervention produced a large educational effect, as indicated by Cohen's $d = 1.597$, exceeding the conventional threshold of 0.80. Likewise, $\eta^2 = 0.724$ suggests that approximately 72.4% of the variance in students' reading comprehension scores was associated with the intervention. These findings indicate that the improvement was not only statistically significant but also educationally meaningful.

Educational Gain

To examine the practical learning gain, a normalized gain (N-Gain) analysis was performed.

Table 5. N-Gain Analysis

Pretest Mean	Posttest Mean	Maximum Score	N-Gain	Category
55.00	66.94	100	0.265	Low

Note. N-Gain categories according to Hake (1998): High (>0.70), Moderate (0.30–0.70), Low (<0.30).

The normalized gain score was 0.265, which falls within the low-gain category according to Hake (1998). Nevertheless, considering that the intervention consisted of only a single 50-minute learning session, the observed improvement can still be regarded as educationally meaningful. The combination of a statistically significant increase, a large effect size, and measurable learning gain suggests that *Stardew Valley* has considerable potential as an authentic learning medium for enhancing EFL reading comprehension.

Overall, the findings consistently support the research objective. Students' reading comprehension scores increased significantly after participating in the structured *Stardew Valley* learning session. The paired-samples *t*-test confirmed a statistically significant difference between pretest and posttest scores, while the large effect size demonstrated substantial educational impact. Although the normalized gain was categorized as low, it reflected meaningful learning improvement achieved within a relatively short intervention period.

Therefore, the findings provide empirical evidence that the use of *Stardew Valley* as a commercial game-based learning medium effectively enhances EFL reading comprehension among vocational high school students, thereby providing a clear answer to the research question.

D. Discussion

The findings of this study provide a clear answer to the research question regarding whether a structured game-based learning intervention using *Stardew Valley* significantly improves EFL reading comprehension among tenth-grade vocational high school students. The statistical results demonstrated a significant increase in students' reading comprehension performance after the intervention, as reflected by the higher posttest mean score, a significant paired-samples *t*-test ($p < .001$), and a large practical effect (Cohen's $d = 1.597$). These findings indicate that the observed improvement was not merely a statistical fluctuation but represented a meaningful educational outcome. Therefore, the research question can be answered affirmatively: integrating *Stardew Valley* into reading instruction effectively enhanced students' EFL reading comprehension within a single instructional session.

The effectiveness of the intervention can be explained from the perspective of constructivist learning theory, which argues that knowledge is constructed through meaningful interaction with authentic learning experiences rather than through passive reception of information (Plass et al., 2020). Unlike conventional reading instruction, where students frequently read texts solely to answer comprehension questions, *Stardew Valley* requires learners to read continuously in order to accomplish meaningful in-game objectives. Quest descriptions, character dialogues, item explanations, and seasonal events all require accurate comprehension before students can successfully progress through the game. Consequently, reading becomes an integral part of problem-solving rather than an isolated classroom activity. This authentic engagement encourages learners to process textual information more carefully because comprehension directly influences their success within the game environment.

The findings may also be interpreted through Mayer (2022) Cognitive Theory of Multimedia Learning, which emphasizes that learning is enhanced when verbal and visual information are presented simultaneously. Throughout gameplay, textual information is consistently accompanied by visual representations, environmental cues, character animations, and contextual interactions. Such multimodal input reduces learners' cognitive

load and enables them to infer unfamiliar vocabulary and textual meaning through contextual support instead of relying solely on dictionary translation. This interpretation is consistent with [Teng \(2023\)](#), who reported that multimedia-assisted language learning significantly improved vocabulary retention and reading comprehension by providing multiple channels for meaning construction. Therefore, the educational value of *Stardew Valley* lies not only in its entertainment elements but also in its ability to create cognitively supportive reading experiences.

Another important explanation concerns the authenticity of language exposure provided by commercial video games. According to [Nation \(2022\)](#), vocabulary acquisition and reading comprehension develop more effectively when learners repeatedly encounter language in authentic communicative situations. Unlike educational applications that often simplify language input, *Stardew Valley* was originally designed for native English-speaking players. Consequently, students are exposed to naturally occurring dialogues, instructions, narratives, and contextual vocabulary that reflect real communicative purposes. This authentic exposure encourages learners to interpret language functionally rather than memorizing isolated vocabulary items. Similar conclusions were reported by [Calvo-Ferrer & Belda-Medina \(2021\)](#), who found that commercial games such as *Among Us* offered richer linguistic input than purpose-built educational games because the language emerged from genuine communicative interactions rather than pedagogical simplification. Accordingly, the present findings reinforce the argument that commercial entertainment games can function as authentic environments for language learning.

The vocational school context further explains why the intervention was particularly effective. Students in vocational education are generally accustomed to practical, task-oriented, and problem-solving learning activities that closely resemble workplace situations. The simulation-based nature of *Stardew Valley* aligns well with these learning characteristics because students continuously manage resources, complete missions, plan activities, and interact with virtual characters while reading authentic English texts. Consequently, English reading was no longer perceived as an abstract academic exercise but became a meaningful tool for achieving specific objectives within the game. [Lamb & Arisandy \(2020\)](#) similarly argued that Indonesian EFL learners demonstrate stronger engagement when English is situated within contexts that are personally meaningful and relevant to real-life purposes. The present study therefore extends their findings by demonstrating that commercial simulation games can successfully provide such meaningful contexts for vocational learners.

Motivational factors also appear to have contributed substantially to the observed improvement. Previous research has consistently demonstrated that learner motivation is one of the strongest predictors of reading achievement in EFL contexts ([Li & Gan, 2022](#); [Sabiq, 2023](#); [Tsai, 2024](#)). By embedding reading activities within an enjoyable and goal-oriented gaming environment, the present intervention transformed reading from a compulsory classroom task into an essential component of gameplay. Students were motivated to understand texts because comprehension directly affected their ability to complete quests, interact with characters, and achieve game objectives. This motivational

shift likely encouraged greater cognitive engagement throughout the intervention and consequently contributed to the significant improvement observed in the posttest scores.

The present findings are consistent with and further strengthen previous empirical research on game-based learning. [Matyakhan et al](#) (2024) reported that game-integrated reading instruction significantly enhanced reading comprehension and learner engagement among Thai university students. Similarly, [Cheng et al](#) (2025) found that gamified reading activities improved comprehension and language enjoyment among Chinese EFL learners compared with conventional instruction. [Wang et al](#) (2024), through a systematic review, likewise concluded that reading activities embedded within purposeful game environments consistently produced better comprehension outcomes than traditional reading exercises. [Zhang & Hasim](#) (2023) similarly reported through a systematic review that gamification in EFL and ESL instruction consistently yielded significant improvements in language learning outcomes across diverse contexts. The consistency between the present findings and these previous studies suggests that the positive effects of game-based learning are robust across different educational settings and learner populations.

The present study also supports the findings of [Kaban](#) (2021), who demonstrated that gamified digital reading environments reduce reading anxiety and increase participation among struggling readers. In the current study, the reduction in score variability from pretest to posttest indicates that students with lower initial achievement benefited proportionally from the intervention, suggesting that the game created a more supportive learning environment for diverse learners. Furthermore, the present findings reinforce the systematic review conducted by [Acquah & Katz](#) (2020), which concluded that digital game-based learning generally improves second-language achievement across educational levels. Furthermore, [Mao et al](#) (2022) reported through a meta-analysis that game-based learning significantly enhanced students' critical thinking skills, further reinforcing the cognitive and academic value of game-based instructional approaches. However, whereas most previous studies focused primarily on vocabulary learning or educational games, this study extends the literature by demonstrating that a commercial entertainment game can effectively improve reading comprehension, thereby addressing an important gap identified in previous research.

[Rüth & Kaspar](#) (2021) similarly reported that integrating commercial video games in school teaching fostered meaningful reflection processes among students, aligning with the findings of the present study. [Gatrell](#) (2025) further argued that digital game-based language learning creates authentic and purposeful L2 engagement opportunities in classroom settings. Overall, the present study not only supports existing theories and empirical evidence but also contributes several new perspectives to the field of digital game-based language learning. First, it demonstrates that authentic commercial games can function as effective reading environments without requiring substantial modification for educational purposes. Second, it extends previous research by shifting the focus from vocabulary acquisition to reading comprehension as the primary learning outcome. Third, it provides empirical evidence from Indonesian vocational high school students, a learner population

that has received relatively limited attention in previous game-based learning research. Although the use of a pre-experimental design limits causal generalization, the consistency between the statistical findings, theoretical explanations, and previous empirical studies strongly suggests that *Stardew Valley* constitutes an effective and pedagogically meaningful medium for improving EFL reading comprehension. Consequently, the findings not only answer the research question but also strengthen the growing body of evidence supporting the integration of commercial digital games into EFL instruction, particularly within vocational education contexts.

E. Implication

The findings of this study imply that commercial digital games can be effectively integrated into EFL reading instruction to create more engaging and meaningful learning experiences for vocational high school students. The results support constructivist learning theory, situated learning theory, and the Cognitive Theory of Multimedia Learning by demonstrating that authentic, contextualized, and multimodal learning environments promote reading comprehension (Mayer, 2022; Plass et al., 2020; Reinhardt, 2023). Practically, *Stardew Valley* offers an accessible alternative to conventional reading activities because it encourages students to read authentic English texts while completing purposeful tasks. This study also extends previous research by showing that commercial entertainment games can improve reading comprehension, rather than merely vocabulary acquisition, among Indonesian vocational learners. Therefore, English teachers are encouraged to integrate authentic digital games with structured reading activities. R  th et al (2022) noted that personal characteristics and prior gaming experience significantly shape teachers' intentions to adopt digital game-based learning, highlighting the importance of professional development programs that build teachers' familiarity with game-based instructional approaches., while future studies should employ experimental designs with larger samples and longer intervention periods to further validate the effectiveness of commercial game-based learning in EFL contexts.

F. Limitation and Suggestion for Further Research

This study has several limitations that should be considered when interpreting the findings. First, the use of a pre-experimental one-group pretest-posttest design without a control group limits the ability to establish strong causal relationships between the intervention and the observed improvement in reading comprehension. Second, the study involved only 36 students from a single vocational high school in Central Java, which restricts the generalizability of the findings to broader educational contexts. In addition, the intervention was conducted in a single 50-minute session and focused solely on reading comprehension outcomes, without examining learners' motivation, engagement, or long-term retention of learning.

Future studies are therefore encouraged to employ more rigorous experimental or quasi-experimental designs involving larger and more diverse samples from different

educational settings. Dashtestani (2022) has identified persistent institutional and personal barriers to implementing DGBL in educational contexts, suggesting that future research should also examine the conditions under which game-based learning can be most effectively sustained in diverse school settings. Longitudinal research with delayed posttests would provide stronger evidence regarding the sustainability of learning outcomes, while mixed-methods approaches could offer deeper insights into students' learning experiences, motivation, and engagement during game-based reading activities. Comparative studies involving different commercial games or instructional approaches would also contribute to identifying the most effective strategies for integrating digital game-based learning into EFL reading instruction.

G. Conclusion

This study concludes that a structured game-based learning intervention using *Stardew Valley* significantly improved the EFL reading comprehension of tenth-grade vocational high school students. The significant increase in posttest scores, supported by the paired-samples *t*-test, large effect size, and positive normalized gain, indicates that integrating commercial digital games into reading instruction can provide meaningful educational benefits. These findings demonstrate that authentic game environments encourage learners to engage actively with English texts through contextualized and purposeful reading experiences, thereby supporting both cognitive and motivational aspects of language learning. Furthermore, this study extends the existing literature by demonstrating the effectiveness of a commercial entertainment game for improving reading comprehension, rather than vocabulary acquisition alone, among Indonesian vocational learners. Overall, *Stardew Valley* represents a promising instructional medium that can complement conventional EFL reading instruction and provides empirical support for the broader integration of commercial digital games into vocational English education.

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