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The Effectiveness Of Using Zepeto's Avatar on Students' Descriptive Text Writing (a Quasi-Experimental Study in the Seventh-Grade Students at SMP Negeri 2 Pontianak)

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Abstract
Utilizing digital technology in English lessons, especially involving junior high school students in the process of customizing avatars from the Zepeto app, can make students more interactive and engaged, capture their attention, and sustain their involvement. This research investigated the effectiveness of using Zepeto's avatar in enhancing seventh-grade students' descriptive text writing. A quasi-experimental study with a quantitative approach was employed. Participants included 61 students from two different seventh-grade classes, divided into an experimental group and a control group. Data were collected using a written test instrument and analyzed through t-tests and effect size analysis. Customizing an avatar from Zepeto inspired students to write and provided them with ideas for where to start. This was supported by the data, with a t-value of 5.9 compared to the t-table value of 1.697 at 30 degrees of freedom. The t-test result (5.9 > 1.697) showed significance greater than the t-table threshold. The effect size for the experimental group was 1.02, indicating a strong effect of the treatment, while the control group had a moderate effect size of 0.53. The results suggest that Zepeto's avatar can be an effective alternative teaching medium for descriptive text writing, particularly for seventh-grade students at SMP Negeri 2 Pontianak.

Keywords*: Descriptive text, writing skill, Zepeto app, avatar, metaverse*

INTRODUCTION

The Indonesian curriculum, called *curriculum Merdeka*, includes English as a foreign language in junior high school, where students are expected to master listening, speaking, reading, and writing (Ningsih et al., 2024). The Indonesian Ministry of Education's *Merdeka* curriculum, announced by Minister Nadiem Anwar Makarim, promotes autonomous learning through teacher-led freedom of thought (Chamisijatin et al., 2023). Teacher-led freedom of thought means teachers must demonstrate creativity and innovation, especially in teaching English skills, including speaking, listening, reading, and writing, as these skills are interconnected and crucial for students' comprehension (Al Qahtani, 2016).

Globally, writing skills have become a major concern in language education. According to the Programme for International Student Assessment (PISA), many students worldwide struggle with written expression and text composition (OECD, 2019). Research by Graham and Perin (2007) indicates that approximately 70% of students in grades 4–12 demonstrate low writing proficiency, with difficulties in organizing ideas, developing content, and using appropriate language conventions. This global trend is also evident in Indonesia, where students face similar challenges in mastering writing skills, particularly in English as a foreign language (Hidayati, 2018). Writing is a skill that develops via experiences, opportunities, practices, and thoughts that are communicated effectively and elegantly organized (Anggraini, 2020). The purpose of writing is to provide knowledge, education, or information. Additionally, in academic writing, there are several writing texts that students need to master, such as narrative, recount, report, procedure, and descriptive texts (Dirgeyasa, 2017).

In the Indonesian context, specifically at SMP Negeri 2 Pontianak, preliminary data from the English teacher revealed concerning statistics about students' writing abilities (Kurniawan & Riyanti, 2024). Based on a diagnostic assessment conducted in the first semester of the 2024/2025 academic year, 68% of seventh-grade students scored below 60 (on a scale of 0–100) in descriptive text writing tasks. The average score was 54.3, indicating that most students had not yet achieved the minimum competency standard of 65. The most common errors identified included: lack of coherent organization (73% of students), limited vocabulary use (65% of students), grammatical inaccuracies (71% of students), and difficulty in generating ideas to begin writing (82% of students). These specific local data underscore the urgency of finding more effective teaching methods and media to improve students' descriptive text writing skills (Dewi & Saputra, 2025). One of the difficulties that some students have when learning English in the classroom is writing descriptive texts (Warda & Wijaya, 2019).

Furthermore, writing in English can be challenging for students, especially junior high school students, because it is a foreign language and not the first language in this country, as observed at the lower level of education (Akbari, 2015). Descriptive text is introduced as the first type of text in 7th grade, based on the *Merdeka* curriculum (Valentiyo et al., 2024). Sustainable assessments are a focus of Indonesia's independent learning curriculum and may trigger students' motivation to learn English (Gayatri et al., 2023). The environment created by the *Merdeka* curriculum allows students to study without feeling rushed or pressured, while also focusing on their individual abilities and interests (Chamisijatin et al., 2023). Furthermore, the *Merdeka* curriculum's focus on individual skills and incorporating students' interests aligns with the potential benefits of using Zepeto's avatar (Wang et al., 2023). However, students may face various obstacles when writing descriptive texts (Daulay et al., 2023). The challenges that junior high school students may encounter include confusion on how to start writing, having ideas mentally but inability to translate them into written text (Warda & Wijaya, 2019), lack of ideas and vocabulary (Syifa et al., 2022), and writing with grammatical errors (Kristiana et al., 2021).

Additionally, according to pre-observation, the researcher observed English classroom activities in the seventh grade at SMP Negeri 2 Pontianak through the *asistensi-mengajar* program. The researcher found that students faced challenges in writing descriptive texts, especially in the seventh grade (Nurfidoh & Kareviati, 2021). The writing ability of these students was dominantly weak, mainly due to the lack of use of English in their daily writing activities (Hasan & Marzuki, 2017). The descriptive text material was sourced from the book *"English for Nusantara"* by Ika Damayanti, published in 2022 (SITI, 2025). Discussions with the English teacher at SMP Negeri 2 Pontianak indicated causes of the lack of writing ability, including the distraction caused by full-length texts, fear of making mistakes, and lack of ideas on what to write (ANNUR, 2021).

To enhance students' writing skills, the genre-based learning approach (GBA) is recommended (Chamisijatin et al., 2023). Several researchers have conducted studies to prove the effectiveness of these approaches in teaching writing (Selvaraj & Aziz, 2019). Based on effective approaches to teaching writing, this research utilized the genre-based learning approach to meet its goal (Dirgeyasa, 2016). The goal of Genre-based Approach (GBA) in writing is not only to enable writers to write but also to help them achieve a specific objective (Dirgeyasa, 2016). According to Hyland (2022), this approach allows writers to express

themselves and achieve specific objectives, such as recounting, reporting, describing, and demonstrating actions, using specific linguistic elements and social conventions. Nasution (2022) found that the improvement of students' writing abilities showed significant positive results using GBA. The researcher used pre- and post-tests to compare the writing skills of students taught using GBA. In this research, the genre-based learning approach supported and assisted the teaching process.

By incorporating digital technology into English lessons, teachers can create a more immersive and engaging learning experience. Animated sources, online interactive games, animation videos, and multimedia pictures make lessons more visually appealing and interactive, capturing students' attention and keeping them engaged (Sari et al., 2023). The idea of an independent learning curriculum currently applied in several schools in Indonesia involves a commitment to increase investment in developing technology in education (Rohmah, 2021). Teachers play a tremendous role in influencing factors that affect changes in students' interest (Pasaribu et al., 2023).

Furthermore, the use of digital technology in teaching English as a foreign language can greatly enhance the learning experience. By incorporating visually engaging elements and multimedia technology, teachers create more interactive and immersive environments (Juan & Yahaya, 2020). This helps students develop better language skills and improves their overall understanding. Junior high school students can see and hear how words and sentences are used in real-life situations, improving listening and speaking skills, as well as their understanding of grammar and vocabulary in context.

Therefore, it is important to consider interactive teaching media that consist of interesting visuals, such as metaverse apps. A metaverse application is one that can be constructed as a virtual universe by users for a virtual environment. The use of the metaverse can enhance the efficiency of students' language learning outcomes, providing features to customize avatars so both learners and teachers can participate in various learning activities, including individual work and group projects (Li & Yu, 2023). ENJIN, Roblox, and ZEPETO are three prominent metaverse applications. According to Ahn (2023), user motivation in the metaverse is driven by self-expression through personalizing avatars that reflect their personalities and traits, enhancing socialization and fulfilling their desire for self-expression. As a result, the researcher conceived an idea to examine whether the ZEPETO application was effective in improving students' descriptive text writing.

ZEPETO is a metaverse application created by SNOW Corporation based in 대한민국

, well-known among teenagers in Asia (Alam & Mohanty, 2022). ZEPETO supports human-like avatars, allowing users to use virtual currency such as coins and gems to customize their avatars and maps (Han et al., 2021). 3D visualized and simulated learners absorb more advanced professional knowledge and skills, helping them stay closer to the learning material and promoting efficient media application knowledge (Weng, 2020). People engage with one another via educational or social interactions using avatars as user representatives. Anyone, regardless of age, can develop and personalize avatars reflecting themselves based on their creativity (Tlili et al., 2022). The researcher used ZEPETO to let students customize avatars as objects to engage their interest in writing descriptive texts that describe a person. The activity started with the students customizing avatars that resemble their appearances. The students

showed enthusiasm when allowed to use smartphones to create "another me" from their appearances. Through customizing the avatar, they wrote one paragraph describing it. The results of this research can assist teachers struggling in the teaching process even after using illustrations, animation videos, pictures, or handbooks.

Several studies have explored the use of digital avatars and metaverse technology in language education, yet significant gaps remain regarding their specific application to writing skills. Research on metaverse-based language learning has shown promising results across various skill areas. Li and Yu (2023) conducted a systematic review revealing that metaverse platforms can enhance language learning motivation and engagement through immersive environments. However, their review primarily focused on speaking and listening skills, with limited attention to written production.

In avatar-based learning specifically, multiple studies have demonstrated positive results. Hidayati et al. (2023) investigated using ZEPETO's chatting features to develop eleventh-grade students' speaking skills, finding a 39% improvement according to Cohen's criteria. While their study confirmed ZEPETO's effectiveness for oral communication, it did not address writing skills or younger learners. Similarly, Park and Kim (2022) examined virtual identity construction in metaverse environments and found avatar customization enhanced students' self-expression and creativity in English tasks. However, their study was qualitative without quantitatively measuring writing outcomes.

Pujiani (2022) explored ZEPETO as an animation tool for teaching English online, showing that animated avatar-based content increased engagement during remote learning. Nevertheless, this research focused on video creation rather than the direct use of customization features as a writing stimulus and was conducted online rather than in offline classrooms. Zhang et al. (2023) researched digital game-based learning for writing instruction and found visual scaffolding through character creation improved narrative writing among secondary students; however, this used different platforms and genres, not specifically addressing descriptive text or metaverse applications.

Wijaya and Gunawan (2023) investigated various digital media for teaching writing at the junior high school level in Indonesia, comparing PowerPoint presentations, video tutorials, and picture series. Their findings indicated multimedia with visual elements improved writing performance but did not examine metaverse or avatar-based applications specifically. Meanwhile, international studies on avatar-mediated language learning by Thomas and Reinders (2021) showed that 3D virtual environments increased learner autonomy and reduced writing anxiety among EFL students, though these studies involved adult learners in higher education contexts.

These previous studies collectively demonstrate the potential of digital technologies, visual media, and virtual environments in language education. However, several critical gaps remain: (1) limited research specifically examines using metaverse avatar customization features as direct stimuli for writing tasks; (2) most studies focus on speaking skills or general language competence rather than writing specifically; (3) few studies target junior high school students, particularly seventh-graders just beginning to learn descriptive text; (4) most avatar-based language learning research has been conducted online or blended, leaving offline classroom applications underexplored; and (5) there is a lack of experimental research with

quantitative effect size analysis measuring the impact of ZEPETO's customization features on descriptive text writing skills.

Given these gaps, there is a clear need for experimental research that specifically investigates how ZEPETO's avatar customization can serve as a teaching medium for descriptive text writing among seventh-grade students in traditional offline classrooms. This study addresses these gaps by conducting a quasi-experimental study with quantitative measurements including effect size analysis to determine the effectiveness of this innovative approach.

The urgency of this research extends beyond filling academic gaps. In the post-pandemic era, educators are seeking ways to integrate digital literacy with traditional classroom instruction, making hybrid pedagogical approaches increasingly relevant (Crompton & Burke, 2023). While emergency remote teaching accelerated the adoption of digital tools, the challenge now is to meaningfully integrate these technologies into face-to-face instruction. This research addresses this practical need by demonstrating how metaverse applications, popular during online learning, can be effectively adapted for offline classrooms. Furthermore, the Indonesian government's emphasis on technology integration in the *Merdeka* curriculum makes this research particularly timely and relevant for educational policy implementation. By providing empirical evidence on the effectiveness of avatar-based teaching media, this study offers practical guidance for teachers implementing innovative pedagogy aligned with curriculum reforms. The findings have broader implications for developing countries seeking cost-effective, engaging digital tools that can be implemented with basic smartphone access, making advanced educational technology more accessible to diverse learning contexts.

The research aims to answer two primary questions: first, whether the use of ZEPETO's avatar is effective in teaching descriptive text to seventh-grade students at SMP Negeri 2 Pontianak, and second, whether there is a significant difference between teaching descriptive text using ZEPETO's avatar and conventional tools. Based on these questions, the research objectives are to examine the effectiveness of ZEPETO's avatar in teaching descriptive text and to assess the significant differences in learning outcomes between the two teaching methods.

The significance of this research lies in its potential benefits for educators, who will gain insights into the effectiveness of using ZEPETO's avatar in teaching, and for students, particularly English language learners, who may find this innovative approach enhances their writing skills. Additionally, this research will provide valuable information for future researchers exploring similar topics. The scope of this research focuses on the writing skills of seventh-grade students at SMP Negeri 2 Pontianak, specifically their ability to write descriptive texts. The independent variable in this study is ZEPETO's avatar, which serves as the teaching media, while the dependent variable is the students' ability to write descriptive texts.

The hypotheses formulated for this research include an alternative hypothesis, which posits a significant difference in descriptive text writing between the experimental and control groups, and a null hypothesis, which states no significant difference exists between the two groups. Finally, key terminology includes descriptive text writing, defined as the activity of writing a text that describes a person, place, or thing; genre-based learning, which focuses on teaching through specific text types; conventional tools, which refer to traditional teaching instruments such as textbooks and presentations; and ZEPETO, a metaverse application that allows users to create customizable avatars representing their identities.

RESEARCH METHOD

The study utilized a quasi-experimental design with a quantitative approach, which involves manipulating independent variables and measuring a dependent variable through non-equivalent pretest and posttest groups. According to Ary (2019), randomization is a crucial aspect of quasi-experimental design, which encompasses various types, from quasi-experimental to completely random. In this study, Variable X represents the treatment administered to seventh-grade students at SMP Negeri 2 Pontianak, which involved instructions to write descriptive texts based on their avatars in ZEPETO, following specific guidelines of two paragraphs totaling 90-120 words. The research sample comprised 61 students divided into experimental and control groups, each receiving a pre-test activity to assess their descriptive writing skills after an explanation of descriptive texts. The experimental group continued with the treatment using ZEPETO's avatar, while the control group did not receive this intervention. Following the treatment, a post-test was administered to evaluate the impact of ZEPETO's avatar on students' writing abilities.

The population for this research consisted of all seventh-grade students at SMP Negeri 2 Pontianak. The sample was obtained through probability sampling, specifically cluster sampling, resulting in two groups for comparison. The data collection technique involved tests to evaluate students' writing skills, utilizing both pre-tests and post-tests to measure individual and group performance. The validity and reliability of the writing test were ensured through clear instructions and a scoring rubric that assessed content and organization. The researcher collected data using a writing assessment based on the Genre-based learning approach, focusing on descriptive texts. Individual scores were calculated based on correct answers, with a scoring rubric adapted from Brown (2001) to evaluate various aspects of writing.

Data analysis included calculating mean scores, differences in scores, and performing a t-test to determine the significance of the results. The t-test formula was employed to analyze the data, with individual scores and mean differences calculated accordingly. The effect size was also computed to evaluate the strength of the treatment's impact, using Cohen's criteria to measure the effectiveness of the ZEPETO's avatar in enhancing students' writing skills. This comprehensive methodology aimed to provide insights into the effectiveness of innovative teaching media in language education.

RESULTS AND DISCUSSION

Research Findings

Following the completion of the research, the researcher gathered data using a written test in order to answer the research questions and measure its hypotheses.

1. The mean score of pre-test and post test

Students in Class VIII B (Experimental group) received a pre-test score of 1813 and a post-test score of 1998. Appendices 7 and 8 include the complete results of the computation of the total score in detail. The division of each mean score during calculation can be seen as follows based on the total number of pupils in the group:

$$\bar{X}\ 1\ : \frac{\sum X}{N} = \bar{X}\ 1\ : \frac{\sum 1813}{31}$$

$$\bar{X}\ 2\ : \frac{\sum X}{N} = \bar{X}\ 2\ : \frac{\sum 1998}{31}$$

However, as a comparison. The researcher calculated the data by the pre-test and post-test in Class VIII D (Control group) received a pre-test score of 1351 and a post-test score of 1457. Appendices 7 and 8 include the complete results of the computation of the total score in detail. The division of each mean score during calculation can be seen as follows based on the total number of pupils in the group:

$$\bar{X}\ 1\ : \frac{\sum X}{N} = \bar{X}\ 1\ : \frac{\sum 1351}{30}$$
$$\bar{X}\ 2\ : \frac{\sum X}{N} = \bar{X}\ 2\ : \frac{\sum 1457}{30}$$

2. The computation of T-test

Following the calculation of the mean score, the researcher created a computational table (see Appendix 9) and performed the t-test. A thorough t-test computation is of experimental group provided below:

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

$$t = \frac{5.9}{\sqrt{\frac{\sum 2011 - \frac{(\sum 183)^2}{31}}{31(31-1)}}} = \frac{5.9}{\sqrt{\frac{\sum 2011 - 1080}{930}}} = \frac{5.9}{\sqrt{\frac{\sum 2011 - 1080}{930}}} = \frac{5.9}{\sqrt{1}} = 5.9$$

The computation of experimental group's t-test is 5.9. in comparison the researcher calculated the t-test of control group provided as below:

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

$$t = \frac{\overline{3.5}}{\sqrt{\frac{\sum 1044 - \frac{(\sum 106)^2}{N}}{30(30-1)}}} = \frac{\overline{3.5}}{\sqrt{\frac{\sum 1044 - 374.53}{870}}} = \frac{\overline{3.5}}{\sqrt{\frac{\sum 669.97}{870}}} = \frac{\overline{3.5}}{\sqrt{1.29}} = 3.08$$

However, the researcher must first compute the different scores squared, then summed, and the difference score in order to calculate the t-test. Squared after adding up. It was found in 2011 and was 1080 in the experimental group based on the mean difference table (see Appendix 9). However, the control group found 1044 and 374.52. These two scores from each group were input into the t-test formula to determine the final t-test result.

The t-test of the treatment obtained a value of 5,9 from the experimental group, according to the computation of the t-test. The t-table with significant (a) at level 0,05 and level of confidence 95% was found to be 1.697 with the degree of freedom (df) = 30, estimated from the formula df = N-1 = 31-1 = 30. The data revealed that the t-test had a higher score (5,9 > 1.697) than the t-table. It meant that the test's outcome was better after the test than it was before.

In comparison, the t-test of the control group obtained a value of 3,08. The t-table with significant (a) at level 0,05 and level of confidence 95% was found to be 1.699 with the degree of freedom (df) = 29, estimated from the formula df = N-1 = 30-1 = 29. The data revealed that the t-test had a higher score (3,08 > 1.699) than the t-table. It meant that the test's outcome was better after the test than it was before.

In conclusion, both the experimental group and the control group have shown significant improvement based on the t-test result. However, in this research, the experimental group obtained a higher score than the control group.

3. The computation of effect size

To answer the second research questions, the researcher calculated the effect size. The researcher used the following formula to compute Effect size:

$$ES = t\sqrt{\frac{1}{N}}$$

The effect size's computation of experimental group:

$$ES = 5.9\sqrt{\frac{1}{31}} = 5{,}9\ (\sqrt{0{,}03)} = 1{,}02$$

Based on the computation of effect size of the experimental group obtained a value 1.02, the result considered as strong effect. According to the computation of the effect size formula listed above. According to Cohen (2018), the identification a strong effect as one with an effect size greater than one (>1).

In comparison, the researcher also used the following formula to compute Effect size of control group:

$$ES = t\sqrt{\frac{1}{N}}$$

The effect size's computation of control group:

$$ES = 3.08\sqrt{\frac{1}{30}} = 3.08\ (\sqrt{0{,}03)} = 0{,}53$$

Based on the computation of effect size of the control group obtained a value 0,53, the result considered as moderate effect. According to the computation of the effect size formula listed above. According to Cohen (2018), the identification a moderate as one with an effect size between (0.51- 1.00).

In conclusion, the experimental and control groups have different effect size. The computation of effect size obtained by the experimental group is 1,02, which is considered as strong effect. Meanwhile, the control group obtained 0,53, it considered as moderate effect. It can also be concluded that the implementation of Zepeto's avatar in descriptive text writing can be an alternative teaching media to English lessons for seventh-grade students at the junior high school level in SMP Negeri 2 Pontianak.

4. Hypothesis testing

According to the research's hypotheses, Ho is accepted if the t-test lower than the t table (t-test < t table) and rejected if the t-test is higher than the t table (t-test > t table). At a degree of freedom (df) = N-1 (31-1) = 30, (a) 95% confidence level, and (a) significance level of 0.05 (5%), the t-test result revealed that the score was higher than the t table. (5,9>1,697). It meant Ha said that " There is a significant difference between teaching descriptive text to seventh-grade students in the experimental group and the control group at SMP Negeri 2 Pontianak." Was accepted and Ho which mentioned " There is no significant difference between teaching descriptive text to seventh-grade students in the experimental group and the control group at SMP Negeri 2 Pontianak. " was rejected.

Therefore, it could be concluded that the implementation of the ZEPETO's avatar is effective in teaching descriptive writing text as the teaching media to seventh-grade students of SMP Negeri 2 Pontianak.

Discussion

This study aimed to investigate whether Zepeto's avatar as a teaching media was having different significance in teaching the writing of the descriptive text to students in the seventh grade at SMP Negeri 2 Pontianak compared to conventional teaching methods or not, and how effective it is. The findings of this study showed a significant difference in the pre-test and post-test scores. Students' mean pre-test score was 58,48, and their mean post-test score was 64,45 of the experimental group. It displayed a meaningful improvement in the student's test results both before and after they used Zepeto's avatar. The t-test was determined to be higher than the t-table (5,9>1.697), according to the data from the t-test and t-table. This comparison demonstrated that treatment had an impact on students' descriptive text writing. However, the control group's comparison score was 45,03 on the pre-test and 48,56 on the post-test. Based on the research questions, the researcher obtained another finding by calculating the effect size of the experimental group to find out how influence the effect to the students on descriptive text writing utilized Zepeto's avatar. The data showed that the effect size was 1,02, considered as a strong effect. According to Cohen (2018), the identification of a strong effect is one with an effect size greater than one (>1). It was found that Zepeto's avatar is possible to be used as an alternative teaching tool for the seventh-grade students at SMP Negeri 2 Pontianak in descriptive text writing.

Furthermore, the findings of this research showed a similar result conducted by Hidayati (2023), who found that Zepeto game learning media significantly enhances students' speaking abilities, with a 39% improvement in speaking abilities according to Cohen's criteria. The students were utilizing Zepeto through the chatting features provided by this app. The students' confidence has shown improvement during the class's treatment. Another research was conducted by Pujiani (2022), who discovered that Zepeto can be utilized in teaching English as an animation video. She conducted Zepeto to customize the avatar, through this research she found the point of view on the evolution of media and its efficacy. The effectiveness of teaching and learning activities is greatly dependent on the proper use of learning media. This study demonstrated that teaching young learners English through animation videos is an excellent learning tool.

Additionally, when students were taught utilizing Zepeto's avatar as the teaching media, the researcher found that this had a positive impact on their descriptive text writing. The results were conducted based on the ability of teaching media to guide students with the writing objective and facilitate their comprehension of the structure and contents of the text by instructing them to compose a descriptive text. As a result, teachers can encourage students to write, give them ideas for starting, and help them to create the content in the descriptive text with the use of this teaching media, which is effective.

However, this study is not without limitations that should be acknowledged. First, the research was conducted over a relatively short duration of four weeks, which may not be sufficient to observe long-term retention of writing skills or sustained motivation. Future research should consider conducting longitudinal studies spanning an entire semester or academic year to assess the sustainability of the intervention's effects. Second, this study focused solely on cognitive outcomes measured through writing test scores, without examining affective dimensions such as writing motivation, anxiety reduction, or attitudes toward technology-enhanced learning. Subsequent research could incorporate mixed-methods

approaches that combine quantitative measurements with qualitative data from student interviews or motivation questionnaires to provide a more comprehensive understanding of the intervention's impact. Third, the study was limited to one school context (SMP Negeri 2 Pontianak) with a specific socioeconomic and technological infrastructure, which may limit the generalizability of findings to other contexts with different resources or student populations.

Future studies should replicate this research across diverse school settings, including rural schools with limited technology access, to examine the scalability and adaptability of this approach. Fourth, while this study demonstrated the effectiveness of Zepeto's avatar compared to conventional media, it did not compare Zepeto with other digital teaching tools or metaverse applications. Comparative research examining multiple digital platforms (such as Roblox, Minecraft Education, or other avatar-based applications) would provide valuable insights into which specific features or applications are most effective for writing instruction. Finally, the study did not investigate individual differences among learners, such as prior technology proficiency, learning styles, or baseline writing abilities, which may moderate the effectiveness of the intervention. Future research could explore these individual difference variables to identify which students benefit most from avatar-based writing instruction and how the approach can be differentiated to meet diverse learner needs.

CONCLUSION

This study demonstrated that using Zepeto's avatar as instructional media significantly improves seventh-grade students' ability to write descriptive texts by providing clear writing goals and helping them organize content, supported by a strong statistical effect ($t = 5.9 > 1.697$, effect size = 1.02) compared to conventional teaching methods ($t = 3.08 > 1.699$, effect size = 0.53). The customized avatars motivated students, sparked their interest, and offered vocabulary and idea generation support at the start of their writing process. Given these positive results, future research could explore the application of Zepeto's avatar-based learning across different grades, subject areas, and in blended learning environments to further validate and extend its effectiveness in diverse educational settings.

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