

**THE CORRELATION BETWEEN ONLINE GAMING HABITS AND
VOCABULARY MASTERY OF SEVENTH-GRADE STUDENTS AT SMPN 18
SURAKARTA**

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ABSTRACT

This study aimed to examine whether there was a significant correlation between online gaming habits and vocabulary mastery among seventh-grade students at SMPN 18 Surakarta. A quantitative correlational research design was employed involving 31 students as the research sample. Data were collected using a questionnaire to measure students' online gaming habits and a vocabulary test to assess their vocabulary mastery. The collected data were analyzed using the Pearson Product-Moment correlation technique through manual calculation and IBM SPSS Statistics. The findings revealed that the mean score of students' online gaming habits was 54.97, while the mean score of vocabulary mastery was 74.97, indicating a high level of vocabulary mastery. The correlation analysis showed that the correlation coefficient (r) was 0.861 with a significance value of 0.000, which was lower than 0.05. These results indicate a very strong and statistically significant positive correlation between online gaming habits and students' vocabulary mastery. In other words, students with higher levels of online gaming habits tended to demonstrate better vocabulary mastery. It can be concluded that online gaming habits positively contribute to students' vocabulary mastery by providing meaningful and contextual exposure to English vocabulary during gameplay.

Keywords: Correlation, Digital game-based learning, English learning, Online gaming habits, Vocabulary mastery

INTRODUCTION

Vocabulary mastery plays an essential role in English language learning because it enables students to understand and use English effectively in both spoken and written communication. However, vocabulary remains one of the major challenges for English as a Foreign Language (EFL) learners in Indonesia. Many students still have difficulty understanding unfamiliar words and applying vocabulary appropriately in different contexts. Therefore, improving students' vocabulary mastery has become an important objective in English language teaching (Nation, 2014; Thornbury, 2002).

Along with the rapid development of technology, online games have become one of the most popular digital activities among adolescents. Since many online games use English as the primary language for menus, instructions, missions, and player interactions, students are frequently exposed to English vocabulary during gameplay. This exposure may support vocabulary acquisition through meaningful and contextual learning experiences (Kapp, 2012; Krashen, 1982).

Previous studies have reported inconsistent findings regarding the relationship between online gaming and vocabulary mastery. Some studies found a significant positive correlation between online gaming and students' vocabulary mastery, while others reported no significant relationship. These inconsistent results indicate the need for further investigation in different educational settings (Azizah et al., 2023; Farhan et al., 2022; Lestari et al., 2024; Wenell & Ramirez, 2020; Zakaria et al., 2020).

Therefore, this study aims to examine the correlation between online gaming habits and vocabulary mastery of seventh-grade students at SMPN 18 Surakarta. The findings are expected to provide empirical evidence regarding the relationship between online gaming habits and students' vocabulary mastery as well as contribute to English language learning through digital media.

METHODS

This study employed a quantitative correlational research design to examine the correlation between online gaming habits and vocabulary mastery among seventh-grade students at SMPN 18 Surakarta. The research was conducted at SMPN 18 Surakarta, Central Java, during the 2025/2026 academic year. A correlational design was used to determine the relationship between the independent variable (online gaming habits) and the dependent variable (vocabulary mastery) without administering any treatment (Creswell, 2012; Gay et al., 2012).

The population of this study consisted of all seventh-grade students at SMPN 18 Surakarta. The sample was Class VII A, comprising 31 students, selected using purposive sampling based on the objectives of the study.

Data were collected using two instruments: a questionnaire and a vocabulary test. The questionnaire consisted of dichotomous (Yes/No) items based on Guttman’s theory to measure students’ online gaming habits, covering the frequency, duration, intensity of playing, exposure to English during gameplay, and students’ responses to newly encountered English vocabulary (Guttman, 1944). The vocabulary test consisted of multiple-choice questions developed based on Nation’s theory to assess students’ vocabulary mastery (Nation, 2014). Before data collection, both instruments were tested for validity and reliability.

The data were analyzed using the Pearson Product-Moment correlation coefficient. The analysis was conducted through manual calculation and verified using IBM SPSS Statistics to determine whether there was a significant correlation between students’ online gaming habits and vocabulary mastery.

RESULTS AND DISCUSSION

This section presents the findings of the study, including the descriptive statistics of online gaming habits and vocabulary mastery, followed by the results of the Pearson Product-Moment correlation analysis.

Table 1. Descriptive Statistics of Online Gaming Habits

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Online Gaming Habits	31	8	100	54.97	37.036

Table 1 presents the descriptive statistics of students' online gaming habits. The mean score of online gaming habits was 54.97, indicating that the participants had a moderate level of engagement in online gaming. This finding suggests that most students regularly played online games and were frequently exposed to English during gameplay activities.

Table 2. Descriptive Statistics of Vocabulary Mastery

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Vocabulary Mastery	31	20	100	74.97	25.382

As shown in Table 2, the mean score of students' vocabulary mastery was 74.97, which was categorized as high. This result indicates that the participants generally demonstrated good vocabulary mastery despite learning English as a foreign language.

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Table 3. Pearson Product-Moment Correlation Analysis

Variables	r	Sig. (2-tailed)	Interpretation
Online Gaming Habits and Vocabulary Mastery	0.861	0.000	Very Strong Positive Correlation

The Pearson Product-Moment correlation analysis revealed a correlation coefficient (r) of 0.861 with a significance value (Sig.) of 0.000, which was lower than the significance level of 0.05. The correlation coefficient falls within the interval of 0.81–1.00, indicating a very strong positive correlation between students' online gaming habits and vocabulary mastery. Therefore, the null hypothesis (H_0) was rejected, while the alternative hypothesis (H_1) was accepted. These findings indicate that students who had higher online gaming habits tended to achieve better vocabulary mastery.

The findings suggest that online gaming may contribute positively to students' vocabulary development. During gameplay, students are repeatedly exposed to English vocabulary through game menus, instructions, missions, item descriptions, and interactions with other players. Such repeated exposure may help students recognize, understand, and retain new vocabulary more effectively. Consequently, students who frequently play online games have greater opportunities to acquire English vocabulary incidentally in meaningful contexts.

The findings of this study are consistent with previous studies that reported a positive relationship between online gaming and students' vocabulary mastery. Students who frequently engage in online games are likely to encounter English vocabulary repeatedly, allowing them to improve their understanding of word meanings and usage. However, the findings differ from several previous studies that found no significant relationship between online gaming and vocabulary mastery. These differences may be influenced by variations in participants, research settings, research instruments, and the types of online games played by the participants.

Overall, the findings indicate that online gaming habits have a significant positive correlation with students' vocabulary mastery. Although online games are primarily designed for entertainment, they may also provide meaningful opportunities for English vocabulary exposure. Therefore, online games can serve as an alternative learning resource that supports vocabulary development when used appropriately.

CONCLUSION

This study examined the correlation between online gaming habits and vocabulary mastery among seventh-grade students at SMPN 18 Surakarta. The findings revealed a very strong positive correlation between the two variables, with a Pearson correlation

coefficient of 0.861 and a significance value (Sig.) of 0.000, which was lower than the significance level of 0.05. These results indicate that students with higher online gaming habits tended to demonstrate better vocabulary mastery. The findings suggest that online games may provide meaningful exposure to English vocabulary through repeated and contextualized language use during gameplay. Therefore, online games have the potential to be utilized as an alternative medium to support students' vocabulary learning. Future research is recommended to involve a larger sample and examine other factors that may influence students' vocabulary mastery.

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