

ABSTRACT

This study investigates the effect of using the Duolingo application on junior high school students' reading comprehension of descriptive texts. The research employed a quantitative quasi-experimental design with a non-equivalent control group design involving two classes: an experimental group and a control group. The participants were eighth-grade students of SMP Negeri 16 Medan. Data were collected through pre-test and post-test instruments consisting of multiple-choice questions designed to measure students' comprehension of descriptive texts. The findings revealed that both groups showed improvement in their reading comprehension; however, the experimental group demonstrated a significantly higher increase compared to the control group. The mean score of the experimental group increased substantially after the implementation of Duolingo-based learning. Statistical analysis using a paired samples t-test showed that the significance value was lower than 0.05 ($p < 0.001$), indicating that the use of the Duolingo application had a statistically significant effect on students' reading comprehension. Furthermore, the integration of gamification, interactive exercises, and immediate feedback in Duolingo contributed to enhancing students' motivation, engagement, and vocabulary acquisition. These elements supported students in better understanding descriptive texts, including identifying main ideas, specific information, and contextual vocabulary. Therefore, this study concludes that Duolingo is an effective digital learning medium for improving students' reading comprehension at the junior high school level.

Keywords: Duolingo application; reading comprehension; descriptive text.