

## ABSTRACT

### **Raply Pitriadi (2026): The Effectiveness of Dola AI in Enhancing Technical Vocabulary Mastery among Visual Communication Design Students (A Pre-Experimental Study at SMK Tarbiyatul Aulad Cikajang)**

Technical vocabulary is an important part of vocational English learning because it helps students understand subject-specific terms related to their field of study. However, students in the Visual Communication Design (VCD) program at SMK Tarbiyatul Aulad Cikajang still had difficulty understanding English technical terms related to design software and digital media, based on preliminary observation and an interview with the English teacher. This led the researcher to examine the use of Dola AI to support students' technical vocabulary learning. The study aimed to determine students' technical vocabulary mastery before and after the use of Dola AI and whether there was a significant difference between the two. A quantitative pre-experimental one-group pretest-posttest design was used, involving 20 students of class XI VCD who were selected through convenience sampling. Data were collected using a 25-item multiple-choice test and analyzed through a normality test, a paired-sample t-test, and an N-Gain test using SPSS version 26. The results show that students' mean score increased from 68.00 before the treatment to 74.20 after four treatment sessions using Dola AI, representing an increase of 6.20 points. The paired-sample t-test produced a significance value of 0.049, which was below 0.05, indicating that the difference between the pretest and posttest scores was statistically significant. However, the 6.20-point increase was relatively small, and the N-Gain score of 0.0887 fell into the less effective category. These results indicate that although the improvement was statistically significant, the actual gain in students' technical vocabulary mastery was modest within the short treatment period. Therefore, Dola AI has the potential to support technical vocabulary learning in vocational education, particularly when implemented over a longer period with continuous practice.

**Keywords:** Dola AI, technical vocabulary mastery, Visual Communication Design, artificial intelligence, vocational English