THE EFFECTIVENESS OF USING MULTIMODAL AND MONOMODAL DIGITAL FLASHCARDS FOR L2 VOCABULARY LEARNING AMONG ADULT LANGUAGE LEARNERS IN PADANG, INDONESIA

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UniversityABSTRACT

This applied psycholinguistics study explores whether multimodal flashcards (containing text, audio, and a picture) are more effective than monomodal flashcards (containing only text) as a tool for adults to learn the meanings of L2 concrete nouns. The application Anki was used as a research instrument. Each participant experienced both conditions (i.e. learning from multimodal and monomodal flashcards) in the study phase (a within-subject design), and recall accuracy data from the study phase and the delayed post-tests was collected and then analysed using a paired t-test. The results indicated that multimodal flashcards of the kind used in this study facilitate deeper and more secure learning than monomodal text-only flashcards, i.e. resulting in significantly fewer user- initiated reviews in the study phase (indicative of the number of memory lapses), and significantly higher recall accuracy in the first post-test. Regarding the study phase, results of the paired t-test indicated that there is a significant medium difference between the number of user-initiated reviews (i.e. 'Again' count) for monomodal flashcards (M = 83.2 ,SD = 61.3) and multimodal flashcards (M = 58.8 ,SD = 32.1), t(24) = 3.4, p = .001. Regarding the first post-test, results of the paired t-test indicated that there is a significant medium difference between the number of correct recalls ('Good' count) of multimodally learned items (*M* = 13.6 ,*SD* = 1.6) and monomodally learned items (*M* = 12.4 ,*SD* = 2.7), *t*(24) = 2.9, *p* = .004. These results support the hypothesis that multimodal flashcards are moreeffective than monomodal flashcards as a tool for learning the meanings of L2 concrete nouns, a difference that can be explained with reference to Paivio's Dual-coding Theory.

Keywords: multimodal, multisensory, dual-encoding, spaced-repetition, retrieval,memory trace, mobile-assisted language learning