## Abstract

Employing efficient and influential vocabulary learning strategies remains crucial for students to acquire new words and terms. Vocabulary instruction and development must commence at the preschool level and extend through school years. Regarding this, the present study explores the impacts of the keyword technique and mapping strategies on L2 vocabulary learning and retention among 120 female Iranian EFL 6th graders within a group learning framework. The study utilized a pre-test (a Standard English Placement Test) to ensure homogeneity and word knowledge pre-test to identify target words. The study's participants were assigned to three experimental groups, including keyword method, concept mapping, and mind mapping, and one control group. During 16 instructional sessions, each experimental group learned target words using instructions of the assigned techniques randomly, while the control group had no special treatment. Upon the instructional sessions, three post-tests evaluated students' vocabulary comprehension, production, and retention. The study employed three distinct one-way ANOVA procedures in order to assess and analyze the results. The outcomes demonstrated statistically meaningful differences among the groups in vocabulary comprehension, production, and retention. The mind mapping technique proved to be the most effective technique across all measures in comparison to the other two techniques. The group utilizing concept mapping also functioned well, while the group in the keyword technique indicated moderate effectiveness. The individuals in the control group showed the lowest performance across all post-tests. Consequently, the current study's outcomes emphasize the high efficacy of using mapping techniques in language teaching, especially mind mapping, to increase vocabulary comprehension, production, and retention in elementary students. The current study's findings offer helpful insights for educational systems, language teaching, institutes, teachers, students, and curriculum developers.

*Keywords:* Keyword Method, Concept Mapping, Mind Mapping, Mnemonic Technique, Mapping Techniques