

## Multimedia Glosses, Spatial Intelligence, and L2 Vocabulary Learning

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### Abstract

This study investigated the effect of different kinds of multimedia glosses and spatial intelligence on L2 vocabulary learning. It also explored the learners' attitudes toward the use of multimedia software in L2 vocabulary learning. Ninety-four Iranian pre-university students were assigned to five experimental groups and a comparison group. The experimental groups were required to read the reading sections of three units of their textbook for six sessions by using Scaffoglossing software and consulting one of the designated glosses, including L1, L2, pictorial, pictorial plus sound, and video glosses. All groups took a Persian equivalent test, a multiple-choice test, and a sentence completion test once as the immediate posttest and 25 days later as the delayed posttest. Repeated measures ANOVAs and the pairwise mean comparisons lent support to the positive effect of the L1 and video glosses. The analyses also revealed the positive effect of the video glosses on the retention of vocabulary. The results of the Persian equivalent and multiple-choice tests provided evidence to the cognitive theory of multimedia learning, though in the sentence completion test the pictorial glosses group performed better than the pictorial + sound glosses group, which was in marked contrast to the cognitive theory of multimedia learning. There was no significant difference between the high and low spatial ability groups in terms of vocabulary learning. The findings of the attitude questionnaire revealed positive viewpoints of participants toward the use of multimedia software. Participants favored the L1 and video glosses more than the other types of glosses.