

Technological Interface Components That Support Accelerated Learning in the Acquisition of Foreign Language Vocabulary (Poster)

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שילוב רכיבי ממשקים התומכים בהאצת למידה בסביבה של מציאות מדומה ללמידת אוצר מילים בעברית כשפה זרה (פוסטר)

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Abstract

There is a need to find innovative learning methods that enable accelerated learning of a foreign language. This study examined the effect of computer-assisted language learning (CALL) in acquiring a foreign language, which combines cognitive and emotional stimuli in the background.

The study explored two factors related to the acquisition of a foreign language: the duration and scope of the learning process and the depth of internalization of the newly acquired language. Another objective was to assess the learning method in two learning environments, 2D and VR, to determine if the learning environment affects the learning results and leads to better vocabulary retention.

One hundred native French speakers, with an average age of 47.5, participated in the study and had no prior knowledge of a newly acquired language. We randomly divided the participants into two groups (2D and VR). They studied 550 words in a new language for five days: 30 minutes each evening and 15 minutes in the morning.

The post-learning test pointed out that both groups improved their vocabulary scores significantly. Approximately one month after the learning experience, we administered a knowledge retention test to 32 participants and found that the level of knowledge had been retained. Finally, background variables (e.g., gender, age, previous knowledge of the newly acquired language) did not affect the learning results.

The findings indicate that CALL, which integrates background cognitive and emotional stimuli in both learning environments, significantly accelerates learning pace, broadens the scope of newly acquired words, and ensures retention. The level of improvement observed in our study is notably higher than reported in the literature that had previously evaluated CALL and in-class language acquisition.

Our study offers an alternative learning method that enables quick and relatively easy acquisition of a new language. To the best of our knowledge, there has been no research concerning the relationship between learning a new language with a technology-based system that

utilizes background cognitive and emotional stimuli to accelerate and enhance the learning process. Further research should be conducted to evaluate the accelerated learning method in an immersive and interactive environment utilizing other frameworks and populations.

The current study compares pre- and post-learning measurements through a 2D and VR environment and did not examine the differences between the groups with and without stimuli. Perhaps future studies will see fit to utilize a control group to compare and evaluate the various methods.

Keywords: Accelerated learning; Acquisition of foreign language; Lozanov model; Computer aided instruction; Virtual reality.

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