A proposed Strategy Based on the Cognitive Load theory Using Augmented Reality Technology in teaching grammar for Developing preparatory stage students' Grammatical Thinking Skills and Lowering Parsing anxiety

Abstract

The current study **aimed at** formulating a proposed grammar teaching strategy based on cognitive load theory using augmented reality, and measuring its effect on developing grammatical thinking skills and lowering Parsing anxiety of first year prep students. The **Problem of the study** was identified in the low level of first year prep stage students in grammatical thinking and the high level of their parsing anxiety. The study relied on both the descriptive analytic method for surveying previous studies, presenting the theoretical framework and building the study instruments, and the experimental method for carrying out the experiment. Participants of the study were divided into two groups, one control and one experimental (each group consisted of 25 female students). Then, the researcher designed the proposed strategy through identifying the basics for formulating the proposed strategy for teaching grammar based on the cognitive load theory and augmented reality and then building the strategy . The steps of its building are represented in the following: identifying the aims of the strategy, its content, stages, techniques, activities, aids, and evaluation tools and methods, in addition to preparing the learning materials required for the proposed strategy. For measuring the effectiveness of the strategy in developing the grammatical thinking skills and lowering parsing anxiety of first year prep female students, two instruments were designed (grammatical thinking test and a scale anxiety of parsing scale). The two instruments of the study were administered to the experimental and control groups prior to the experiment, then the grammar topics selected were taught to the two study groups (the experimental group was taught using the suggested strategy, and the control group was exposed to the traditional methods of teaching grammar). After the experiment, the study instruments were administered again, and data were collected, and statistically analyzed. Results of the study were reached and statistically analyzed. And by calculating the adjused gain percentage of Black and its significance, the results showed the effectiveness of the suggested strategy based on cognitive load theory and augmented reality in developing first year prep stage students' grammatical thinking and lowering their Anxiety of Parsing. Based on these results, some recommendations and suggestions for further research were introduced.

Keywords: cognitive load, augmented reality, grammatical thinking, Anxiety of Parsing