

The interaction between the style of note-taking (guided/free) and the rate of embedded questions (low/high) in interactive video within the e-learning environment, and its impact on the development of immediate and delayed cognitive achievement, and the reduction of cognitive load among educational technology students

Abstract:

The current research aims to measure the interaction between the style of note-taking (guided/free) and the rate of embedded questions (low/high) in interactive video within the e-learning environment, and its impact on the development of immediate and delayed cognitive achievement, and the reduction of cognitive load among educational technology students. More than one educational research method was used, which includes the descriptive method, the systems development method and the experimental method. The research was applied to a sample of (100) third-level students in the Educational Technology Specialist Preparation Program -the Faculty of Specific Education - Fayoum University. They were divided equally into four experimental groups. The results indicated significant statistical differences between the note-taking styles in the interactive video (guided/free) in favor of the free note-taking style regarding immediate and delayed cognitive achievement and the reduction of cognitive load. The results also indicated significant statistical differences between the rate of embedded questions (low/high) in the interactive video, in favor of the low rate of embedded questions regarding immediate and delayed cognitive achievement and the reduction of cognitive load. The results indicated that there were no statistically significant differences attributable to the interaction between the note-taking style and the rate of embedded questions in the interactive video regarding immediate cognitive achievement and the reduction of cognitive load. However, statistically significant differences were observed attributable to the interaction between the note-taking style and the rate of embedded questions in the interactive video regarding delayed cognitive achievement, in favor of the second experimental group (free note-taking/low rate of embedded questions).

Keywords: Interactive Video – Guided note-taking style - Free note-taking style - low rate of embedded questions - High rate of embedded questions - Immediate cognitive achievement - Delayed cognitive achievement - Cognitive load.