



**The Interaction between Media Density in Digital Video in an E-Learning Environment and the Cognitive Style and Its Impact on Developing Digital Graphics Production Skills and Reducing the Cognitive Load of Educational Technology Students**

Proposal for Master's Degree in Education

(Educational Technology)

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## Research Abstract

### **Abstract:**

The current research aimed to investigate the impact of interaction between media density (high/low) in digital videos in an e-learning environment and cognitive style (surface/deep) on the development of digital graphics production skills and the cognitive load of educational technology students in the Faculty of Specific Education, Fayoum University. The researcher prepared some tools to measure the effect of interaction, including an achievement test and observation card, and adopted Helmy El-Feel's cognitive load scale (2015). The research sample consisted of 120 male and female students. The research sample divided into four groups (30 students each) . The research findings have shown that digital videos with high media density are more effective in academic achievement, performance observation cards, and cognitive load measurement than digital videos with low media density. The results have also indicated that students with a deep cognitive style in the two experimental groups performed better in academic achievement and performance observation cards. However, no significant difference was observed between (surface/deep) cognitive style students regarding cognitive load measurement. Additionally, the study has confirmed that there are statistically notable differences in achievement levels, performance skills, and cognitive load based on the interaction between media density and cognitive style.

**Keywords:** media density in digital videos, cognitive style, e-learning environment, digital graphics production skills, cognitive load.