

Extending physical multimedia learning with cognitive theory of multimedia learning

ABSTRACT

The research studied whether a physical multimedia designed in accordance with Cognitive Theory of Multimedia Learning (CTML) enhances the learning performance of young children. Learning via touches addressed in digital technology has been increasingly emphasised in education nowadays. Hence, inquire into the efficacy of physical multimedia further extended with application of CTML potentially gives digital multimedia new contexts juxtaposing tactile quality and design principles. The research deployed multiple-group quasi-experimental factorial design contrasting physical multimedia and digital multimedia instructions. Children's achievement score was set as dependent variables. Incisive explanation of physical multimedia from its initial idea and conception, the way of development, how CTML was applied, until empirical experiment is described in this paper. The results suggest that physical multimedia solidified subjects' achievement scores more than digital multimedia.

Keyword: Component; Mayer; Cognitive theory; Multimedia learning; Physical multimedia