ABSTRACT

The Cognitive Load Theory (CLT) is extensively accepted by instructional designers since it offers theoretical foundations in designing guidelines for constructing. Instruction that effectively presents the learning in our working memory has an impact on our ability to store knowledge and skills in our long term memory. CLT suggests that the best instructional material facilitates by directing cognitive resources towards activities that are related to learning rather than toward preliminaries to learning. I applied the CLT to the design of the instructional courseware and discovered that CLT provides a sound baseline for the design of the learning instruction. Further, to effectively enhance courseware based instruction, the Graphical User Interface (GUI) and multimedia elements must be developed in considerations of CLT principles. The capacity of working memory is very limited, the CLT assumes that presenting different sources of information in the same modality, only visually easily caused split-attention effect, which leads to poor learning performance. To prevent this, a method recommended by CLT is to show information in different modalities for instance, auditory text plus visual displays. Current advances in the CLT research community have contributed significantly towards the instructional design of the interaction between information structures and human cognitive architecture. Moreover, the concept of element interactivity can be used to explain not only why some material is difficult to learn but also, why it can be so difficult to understand. The understanding becomes relevant when high element interactivity material with a naturally high cognitive load being learned.
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