

## **Design of Interactive and Dynamic Anatomical Visualizations: The Implication of Cognitive Load Theory**

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In improving the teaching and learning of anatomical sciences, empirical research is needed to develop a set of guiding principles that facilitate the design and development of effective dynamic visualizations. Based on cognitive load theory (CLT), effective learning from dynamic visualizations requires the alignment of instructional conditions with the cognitive architecture of learners and their levels of expertise. By improving the effectiveness and efficiency of dynamic visualizations, students will be able to be more successful in retaining visual information that mediates their understanding of complex and difficult aspects of anatomy. This theoretical paper presents instructional strategies generated by CLT and provides examples of some instructional implications of CLT on the design of dynamic visualizations for teaching and learning of anatomy.

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