

Managing the Cognitive Load of Medical Students during Anatomy Lecture

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Abstract : Anatomy is a medical subject, which contributes to high cognitive load during learning. Despite its complexity, anatomy remains as the most important basic sciences subject with high clinical relevancy. Although anatomy knowledge is required for safe practice, many medical students graduated without having sufficient knowledge. In fact, anatomy knowledge among the medical graduates was reported to be declining and this had led to various medico-legal problems. Applying cognitive load theory (CLT) in anatomy teaching particularly lecture would be able to address this issue since anatomy information is often perceived as cognitively challenging material. CLT identifies three types of loads which are intrinsic, extraneous and germane loads, which combine to form the total cognitive load. CLT describe that learning can only occur when the total cognitive load does not exceed human working memory capacity. Hence, managing these three types of loads with the aim of optimizing the working memory capacity would be beneficial to the students in learning anatomy and retaining the knowledge for future application.

Keywords : cognitive load theory, intrinsic load, extraneous load, germane load

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