

Creating Interactive Digital Anatomy Modules for the Indiana University School of Medicine Human Structure Course

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Background and Hypothesis:

The Human Structure (HS) course at Indiana University School of Medicine (IUSM) was condensed from 115 contact hours over 34 weeks to 96 hours over 17 weeks in 2016. The current course is delivered via block schedule over 10 weeks. A 2016 institutional review of IUSM found that examination scores after the curricular change were significantly lower than those prior to 2016. The data regarding the effect of similar curricular change in U.S. medical programs is mixed. There are consistent findings that interactive, streamlined, manipulatable, and testable review materials support learning and retention of information better than passive review. We hypothesize that incorporating interactive anatomy quiz modules created specifically for the statewide HS course at IUSM will improve learner acquisition of gross anatomy.

Methods and Results:

Using high-quality dissection photographs, we constructed 11 interactive learning modules including the lower extremity, abdomen, pelvis, and muscles of facial expression (MOFE). Modules adhered to the Session Learning Objectives and Structures to Know lists for the course. We built modules in PowerPoint, then made them interactive and easily quizzable in Canvas using HTML5 Package (H5P). Modules were peer-reviewed by two anatomy professors and a third collaborator. The Urogenital Triangle and MOFE modules have been fully approved by the CMT for inclusion in the 2022 Course. We expect additional approval of all completed modules.

Potential Impact:

We expect that providing students with native interactive modules for gross anatomy will make learning more efficient and reduce the time students spend searching for adequate practice materials from outside sources. We expect this will improve student learning and increase examination scores.