

Anatomage Table Proven to Elevate Chiropractic Student Gross Anatomy Scores

Comparing Student Performance Across Multiple Teaching Methodologies

Faculty members at Life University worked to evaluate lecture and laboratory scores of 1st-year chiropractic anatomy students. The goal was to establish whether students learning on the Anatomage Table would meet similar assessment objectives as students learning on anatomical models or cadavers.

Evaluating Student Lecture & Laboratory Exams

Data was gathered from 3 separate cohorts for 3 consecutive academic years. Cohort 1 included students that practiced cadaver dissection, observed prosections, and utilized anatomical models and atlases. Cohort 2 mainly worked with anatomical models and atlases. Cohort 3 students studied models and had 2 hours of laboratory time per week dedicated to working with the Table. During lab exams students were tested with either cadavers, models, or on the Table based on their cohort.

Students that tested on the Table for lab exams scored an average final score of 85.1%, higher than those who were tested solely on models (81.4%) and cadavers (76.1%). The final scores averaged at 85.3%, 10.7 percentage points higher than students tested on cadavers (74.6%). On average, they tested 3.7 percentage points above those tested on models and 9 points above those tested on cadavers. For the lecture portion of the course, no significant differences were seen in lecture exam scores between the cohorts.

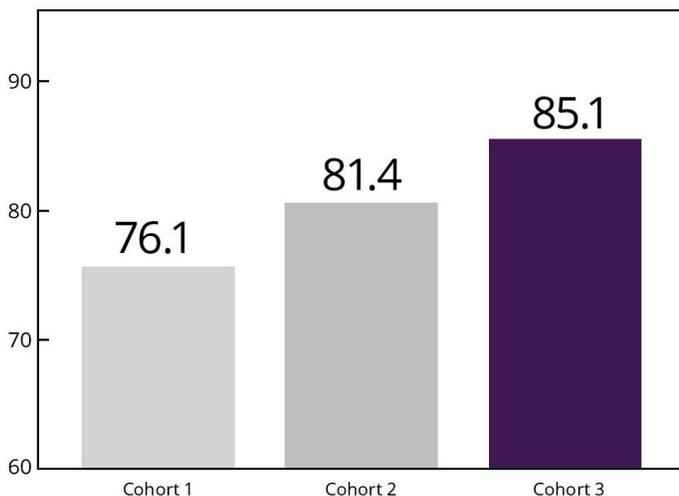


Figure 1 - Overall laboratory examination mean scores of the 3 cohorts. There was a successive increase in the score percentages of the 3 groups.

Effective Gross Anatomy Teaching Practices

Consistent lecture scoring suggests that regardless of the teaching method, students still achieved the necessary course objectives. Higher lab scores in the cohort that utilized the Table could be due to seeing more detail with topography and depth of structures. Images were clear and unable to be destroyed by dissection. With cadavers, students may have spent more time focused on getting dissection techniques accomplished and less time absorbing information. Many were reluctant to attend extra sessions because of fumes or general discomfort. Additionally, students who primarily used models had limited tactile input. Spatial relationships were more difficult to discern and spinal nerves and vessels more difficult to trace.

Gross Anatomy Visualization With Virtual Dissection

Faculty members at Life University plan to continue with a multifaceted approach to gross anatomy instruction. Chiropractic students enjoy active, engaged learning and they easily adapted to the Table's functionality. Students learning and testing on the Table met and exceeded the same assessment objectives as those learning with models and cadavers.

References

Afsharpour, S., Gonsalves, A., Hosek, R., & Partin, E., MED, DC. (2018). Analysis of immediate student outcomes following a change in gross anatomy laboratory teaching methodology*. *Journal of Chiropractic Education*. doi:10.7899/jce-17-7