

Abstract: An Approach to Aid Faculty in Developing Teaching Approaches and Testing Methods that Focus on 'Essential' Concepts in a Human Anatomy Course

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Background: To evaluate a system for aiding faculty in determining whether students learned “essential” concepts as defined by the faculty in a regional block of instruction in an anatomy course. Our hypothesis was that if faculty place appropriate emphasis on “essential” material during teaching sessions, making clear what is considered essential and why it is considered so, then performance on questions related to this content should be better than performance on questions dealing with material presented, but not identified as essential.

Methods: We asked our anatomy teaching faculty (N=5) to identify and list the 60 most important (essential) structures from over 150 laboratory structures/relationships related to the anatomy of the thorax that are listed in our Anatomy Guide & Workbook. Using a modified Delphi approach, we reduced the number of structures initially identified by the faculty (N=74) to 50 structures agreed upon by all faculty. We then created a 50 question end of block examination in which the correct answer to 42 questions was one of the “essential” structures/relationships. Using our exam software we determined the percentage of students answering each of the “essential” questions correctly and the percentage of students answering each of the remaining questions correctly.

Results: Mean student score on the 42 “essential” questions was 91.3% (range 58%-100%). The mean score on the remaining 9 questions was 71.3% (range 40%-100%).

Conclusion/Discussion: Our results suggest that efforts on the part of the faculty to identify and teach in the classroom and dissecting laboratory content defined as “essential” were successful. We conclude that it is important for faculty to define what is important for students to learn to develop instructional and assessment activities that are closely linked to that content. Such efforts will also provide students with reliable and direct guidance in their study.