

e-Learning in Teaching Anatomy

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Introduction: We have been searching for new methods of teaching the most demanding or demanded anatomical topics by use of internet. A software package for producing internet-based courses and web sites „Moodle“, set up in 2002 at the Department of Education and IT Application, Faculty of Medicine in Pilsen (OVAVT), was used to create the Atlas of Brain Sections and a blended learning course the Temporal Bone. Aims: Both the Atlas of Brain Sections and the Temporal Bone course are designed for the first and the second year students. They offer a guideline to those, who are just beginning to learn the topic, but they can also be useful to students who are reviewing anatomy for other clinical subjects.

Materials and Methods Atlas of Brain Sections Two human brains fixated in formaldehyde were cut in the frontal and horizontal planes into slices about 7 mm thick. The digital photos of the slices were adjusted in Adobe Photoshop and the most featuring and important structures were marked and described. Temporal Bone – blended e-Learning course The course includes the interactive dictionary, flash animation, test and questionnaire. Flash animatiation plays the critical role in this course. Three right side human temporal bones were successively ground off at different anatomical planes. After removing 0.5 mm thick layer of the bone, photographs were taken (using an Olympus E-400 camera, with a 14 – 24 mm focal length). The photographs were configured (using Adobe Flash software), to produce the flash animations. Results: The Atlas of Brain Sections offers various 15 frontal and 5 horizontal sections, every displayed section can be compared with a schematic drawing. The temporal bone animations visualize both the entire bone and its inner structures. This project is supported by the Ministry of Education, Youth and Sports of the Czech Republic, under project DIV No 2263/2007 and No 135/2008.