



OUR EXPERIENCES WITH E-LEARNING METHOD OF TEACHING PRACTICAL HISTOLOGY

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Keywords: *histology, e-learning format, virtual slides*

Three years ago we started to use e-learning format of teaching practical histology to medical students. We have developed our own system of application of virtual slides in a classroom equipped with PC technology. In this communication, we are evaluating the impact of this method on our pedagogic effort from teacher's and student's point of view.

Each practical session contains a set of virtual slides with information on slide properties, keywords, file size, and also overview pictures of virtual slides. Additional supporting documents in pdf and ppsx formats are also available for each of the histology topic. During study of virtual slides, students can screen-copy selected areas of virtual slides viewed in the OLYvia (Olympus) viewer, and paste them into their own ppt presentations for later revisions. Simultaneously students watch projection of virtual slides on a wide screen accompanied by teacher's explanation. For electronic testing of student's practical knowledge we prepare quizzes using Articulate Quizmaker 13 software. This software has a selective option to shuffle sequences of questions and also to shuffle all distracters in the quiz randomly on monitors of student's PCs.

The long-term application of this method brought several benefits to our teaching experience. The uniform set of virtual slides of the same quality was used for all students. Digital slides also prevented loss or breakage of this valuable teaching material. Supporting documents (guides, ppt presentations and pictures) were suitable materials for later revisions and self-study. E-learning format enabled us to introduce new models of practical teaching which support active student's approach and their engagement in group activities on digital slides. This helps with ever-increasing numbers of students at our Faculty of Medicine. This new teaching format also fulfils student's expectations to use innovative technologies (pc, laptops and tablets) during their studies. Objective evaluation and quick procedure of examination of formative and summative in-course quizzes are important benefits during practical testing. Access to virtual slides at any time, not only at set times of teaching hours, was provided through the external login (intranet, internet, multiple browsers) to the database of virtual slides which correspond to those in practical sessions. This open database of virtual slides contains short annotations of typical structures that are important for identification of slides. There were also some drawbacks recognised during our practice, like a tendency of some students to passively follow the demonstration of digital slides. They also preferred to observe histology slides in their digital form on PCs rather than to use simultaneously classical microscopes that were also available on their benches.

The e-learning format of histology practical based on virtual slides proved to be a didactically efficient method of teaching histology to medical students.

Students readily accepted to use of computers for observation of virtual slides. Teachers benefited from a uniform quality of presented slides and also from a straightforward and easy personal communication with students in the class when personal guidance and explanation was needed at student's monitors. PC-based classes of practical histology also provided an easy environment for computerized testing of student's practical knowledge. Most of the mentioned drawbacks can be prevented by proper organization of practical sessions.

Acknowledgement: Development and application of the electronic e-learning method of teaching histology practical was supported by ESF-OPVK grant n. CZ.1.07/2.2.00/28.0089 in years 2012–2014.