

RESULTS OF PROJECT “MEFANET 2009” AT THE 3RD FACULTY OF MEDICINE, CHARLES UNIVERSITY IN PRAGUE

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Abstract

At the Third Medical Faculty of Charles University in Prague we have established Mefanet portal and we worked out a number of essential tools and administrative frames for online learning as well as series of electronic educational materials. That was enabled by the Centralized development project of Ministry of education, youth and sports. We built up an environment and have started a number of promising electronic educational materials in several fields of medicine (Anatomy, Orthopedics and Traumatology, Stomatology and Biophysics). We succeeded to arouse our teachers, so now a growing number of educators know to prepare and use an e-learning course and other types of online learning objects. Teachers are aware of pros and cons of electronic distant learning, they see the advantage of using it and some of them are already keen to implement multimedia and e-learning into their everyday teaching. Online education needs teachers motivated and helped, so we have launched some support activities this year, as we proposed. For next we plan to go on and to develop even more advanced online learning environment based on Mefanet portal and to contribute to the teachers training on online education.

Keywords: E-learning, multimedia, Anatomy, Orthopedic-Traumatology, Biochemistry, Biophysics, Stomatology

Article

The Third Medical Faculty of Charles University in Prague, thanks to the Centralized developmental project MEFANET 2009, established and worked out number of essential tools and administrative frames for online learning as well as series of electronic educational materials.

At the faculty we built a core team dedicated to help and support building multimedia and distant learning object. The team has paid an effort to reach activities planned in the project. At the end we can report general success at this point. We have implemented faculty gateway to Mefanet portal, established the portal maintenance and electronic materials administration, set the portal technical support and the permanent portal announcement at the faculty home page.

We realized four introductory courses for faculty members to help them and to overcome beginners' problems as concerned to new "electronic teachers" who deal with the e-learning courses in Moodle learning management system (LMS). As a result of our intensive effort we have finally created the Edition Commission for Electronic Educational Materials (EC EEM). Consequently with that we set the announcement of board of EC EEM guarantees covering all medical disciplines. Meanwhile we came up with the idea of setting such a board but comprising all Mefanet faculties (EC EEM guarantees common to all faculties). Nowadays this idea is let to all members of Mefanet network to think about. Nevertheless there is a feedback already, this call has roused positive reactions and it is going to be seriously discussed. At our faculty we have also adopted the edition commission work rules.

As we had announced in project we realized at the department of Medical Biophysics and informatics e-learning courses with biophysical topics for students from English curriculum, large set of exam questions in e-learning system (Moodle) allowing students self examination as well as preparation to the real final 2-semesteral biophysical test.

As a pilot work at Stomatology Clinique we have built first part of "Catalogue of medical instruments and devices used at faculty hospital". It seems to be promising database useful as for students being examined in specialized medical techniques and methods as for medical doctors in long-life education and attestation. In tight cooperation with Stomatology Clinique we have also worked out the web based multi-medial application of knowledge requirements assigned for success in preliminary tests on Bachelor discipline "Dental hygienist". There has been also realized the pilot e-learning course „Tools“ for discipline "Dental hygienist". Detailed description of demands on hygienic-epidemiologic regime of dental practice in dental medicine according the s requirements done by Principal Hygienist of the Czech republic was implemented as well.

We helped and supported teachers from different departments to produce e-learning courses, multi-medial atlases, video lectures accessible via internet and some other types of electronic educational materials. The community of faculty teachers having e-learning know-how rapidly increased and more important there is an encouragement for faculty leaders to support this kind of education. One should appreciate it even that is trend of up-to-date development of education approaches.

We have also initiated work out the series of multimedia learning objects realized at Orthopedic-Traumatology Clinique. Thanks to approach of vice director of this Clinique (docent V. Džupa, M.D.) there were several sophisticated educational materials built up. Those learning objects comprise the database of interactive casuistic from Orthopedics and Traumatology of moving

apparatus, the multi-medial web support to the state final surgery exam focused on Orthopedics and Traumatology, commented video recordings of seminars from Orthopedics and Traumatology of moving apparatus (i.e. Osteosynthesis of pelvis fracture and acetabulus fracture, Osteosynthesis of shin fracture, etc). Beside that, three real “live” operations from Orthopedics and Traumatology of moving apparatus were recorded and edited for internet share. Commented PowerPoint presentations (Clinical examination of limbs, Acute chronic osteomyelitis, Arthritis etc.) were created and adapted for web sharing as well.

With our support also Department of Anatomy (docent V. Báča, M.D.) has worked out e-learning courses dedicated for distant education (E-course of normal, topographic a clinic anatomy of respiratory and digestion system, E-course of normal, topographic a clinic anatomy of excretory system). Interactive educational tool “Atlas of functional anatomy of skeleton system” built also at Department of Anatomy is still in the construction.

Our encouragement made Dr. V. Balínová from Department of biochemistry to realize set of first-rate E-courses and web-shared PowerPoint presentations for students of Bachelor of Medicine (Metabolisms of proteins, Metabolisms of lipids, Metabolisms of carbohydrates, Enzymes).

Some teachers on 3rd faculty of medicine at Charles University were self confident enough to realize the professional E-courses and the educational video presentations by themselves without any help from us (i.e. Dr. H. Svobodová, Department of nursing: “Hypertension I”, “Hypertension II”).

As a good deal of success we consider also number of e-courses in our LMS Moodle which we administer as well. Fourteen e-courses are already in daily use of education practice. Another more than thirty e-courses are still under construction.

Conclusion

We consider as success we awaked up great portion of our teachers, so they now how to prepare and use an e-learning course and other types of online education materials. They see advantages of using it and they want to know the best practices. Online education needs teachers motivated and helped, so that is challenge for us for the next.

Summarizing our goals, efforts and results we have reached, for the next year we plan to go on in development of advanced online learning environment based on Mefanet portal and to contribute to the teachers training of online education. We plan to support the development of all variety of electronic educational materials and to strengthen the participation more teachers at our faculty.
