

**PES 4****SHOULD THE INSTRUCTIONS FOR LEARNING/TEACHING PHYSIOLOGY BE DIFFERENT FOR MEDICAL STUDENTS AND RESEARCH STUDENTS?**

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Our graduate students at Chang Gung University College of Medicine in Taiwan take the same human physiology course as for the medical (as well as Chinese medicine) students in the past several years. We found that the average grades for graduate students were about 10 points (out of a 100) below medical students. Several reasons may contribute to this consistent and significant disparity. Firstly, medical students ranked top 2% nationally, however, graduate students came from a diverse background and ranked anywhere from 10 to 50% when they enrolled in college. Secondly, the content of the test mainly consists of multiple-choice questions based on factual knowledge. We found that medical students are good at assimilate large amount of information with good retention. Thirdly, medical students form small study groups and spend more time to study notes and textbook, but graduate students appear to rely more on the lecture and powerpoint materials. These differences are very difficult to reconcile under the given arrangements. It thus appear that instructions for learning/teaching physiology should be different for medical and graduate students.

**PES 5****WHAT KIND OF CHANGES WE NEED IN MEDICAL PHYSIOLOGY EDUCATION IN DEVELOPING COUNTRIES - VIETNAMESE EXPERIMENTS**

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In 1992, Vietnamese medical educator and teachers were introduced about PBL in medical education lasted 15 minute during the 7 days workshop about active learning and teaching. After this workshop, PBL didn't welcome with many causes such as: lack of medical textbooks, lecture series, laboratories, tutorials, seminars, conferences, bed-side, computer-aided. 8 medical universities in Vietnam still follow the traditional way of medical education (one teacher gives her/his lecture in the auditorium with microphone. The teacher all the subjects set out by her/his professor - head of the Department. The students just listen to the lecture and take notes, observer usually can look some student yaw repeatedly, drowsily, sleepy over there. Recently, a hybrid curriculum was designed by head of department and all tutors follow. In 1<sup>st</sup> process, 200 students are introduced to principle, mainly knowleg about 45 minutes for 1 chapter in big hall, after 1~2 days they come back for the next step (small group discussion in a small room). They prepare some items in textbook and after that they receive a problem scenario including 1-3 exiting questions. Evaluation on the group-learning process and individual learning experience was done in 10 min at the end of each tutorial session. All process are repeated to next chapter and continue to the end of semen. Thus the paradigm in Vietnam hand on department (professor)-dependent, lecture-oriented style. We recognized that there are many work to integrate PBL in Vietnam medical education. We are preparing create a human physiology web page for elearning in Vietnam and PBL is designed addition to multimedia lesson plans. The feature of PBL curriculum design including scenarios with interaction between student and virtual tutor (use Moodle software-open source). A PBL forum modun to be effective in assisting interaction of physiology into the multidisciplinary approach required during the early years of PBL curriculum. Then we set up a wiki where students could do everything about PBL on each basis science subjects. We'll try develop PBL ourselves through PBL workshops, tutor training workshops, leadership development and attract students to PBL forum through doing research project in medical education. These ideas will be accepted though answer the question: Is the PBL more likely than traditional education to produce good doctor? The data collected from a randomize controlled trial will be evidence based for outcome of PBL in medical education. We need a complete program of PBL development and research to provide definitive answer. The most important thing here not just change in method, but also change in mindset, attitudes at all levels of stakeholders as Chui-Yin Kwan said in 5<sup>th</sup> FAOPS Congress.