SATURDAY 5 SEPTEMBER

Time: 1000-1100 hrs
Session: #A1 - Short Communications: Online Assessment
Location: Hall 2, SECC
Chair: Nabil Zary (Sweden)

1000-1015
#A1.1 (26180)
Digital assessments – challenges, choices and pitfalls

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In a rapidly changing world, where technology is making inroads everywhere, digital assessments are becoming more and more common. To many it might seem as an obvious choice to be made, and there are many benefits that could be mentioned. However, we cannot hide the fact, that digitalizing assessments is a potential upheaval of an existing order of doing things, and as in any change, there are choices to be made, and pitfalls to be avoided. In this session we would like to share our experience with digitalizing assessments. In 2011 we started our first project with an aim at digitalizing assessments at the faculty of Health, Aarhus University. Today (2015) we have digitalized approximately 70% of our assessments, including MCQ (multiple choice) and OSCE (objective structured clinical examination), with 7-800 students assessed each semester.

We have developed our own systems for the digitalized assessment, where we provide all the hardware (iPads + network). While providing us with a great deal of flexibility, these choices have also presented some challenges. Apart from the pure technical issues, there are organizational and increasing logistical challenges, due to the success of the digitalization and the increasing number of students. At our faculty there is only one person allocated to this task. This talk shares his story.

1015-1030
#A1.2 (28128)
Understanding How Learning Analytics Might Assess the Whole Practitioner

_Janet Corral*, University of Colorado, Aurora, USA_

_Beckground:_ Learning analytics is an emergent field of research that aspires to use data analysis to describe health professions learner achievement. Early implementations often focus on education data mining; that is, the analysis of quantitative evaluation data. This practice is often in tension with contemporary conversations and evaluations in the health professions that aim to assess the whole learner, including humanism, communication, and patient-centered care.

_Metho d s:_ A gap analysis triangulated a review of the literature on methods in learning analytics with validated assessment tools in medical education.

_Resu lts:_ Specific learning analytics methods for written discourse analysis, sentiment analysis, and social network analysis provide the power to analyze non-cognitive characteristics such as humanism, communication skills and patient-centered care. Sample sizes, ethical concerns, and disclosure of evaluation data usage in analytics methods will be discussed in the general context of health professions education, that attendees may translate these conversations to their local education programmes.

_Conclusio ns:_ When learning analytics is conceptualized as “analyzing the relationship between learner, content, institution, and educator” (Long & Siemens, 2011), learning analytics holds promise to assess the humanistic, social, and non-cognitive development of learners. Medical schools can be empowered today to design learning analytics projects to assess the whole learner.
Continuous virtual feedback enhances point of care ultrasound learning: the Brazilian-Portuguese POCUS Collaboration Group

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Tatiana Ozahata, School of Medical Sciences of Unicamp, Emergency Medicine, Campinas, Brazil
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Background: Point of care ultrasound (POCUS) has become an essential tool for the assessment of critical patients in the emergency department. Therefore, a collaboration group for POCUS development was created between emergency physicians from Brazil and Portugal.

Summary: A team of dedicated Brazilian physicians were invited to minister a presential POCUS training course for their colleagues at the Hospital of Braga, in Portugal. After the course, continuous problem-based e-learing consisting of POCUS videos feedback from real portuguese medical cases was performed. The videos were evaluated by the Brazilian team in terms of technique, orientation of the ultrasound probe, video gain, video depth and video time. Results were dicotomized between adequate versus inadequate.

Results: In three months, eleven clinical cases were assessed and discussed. A total of 123 videos were analyzed. The number of videos varied widely among cases (average 11.2 videos per patient). Overall exam adequacy for technique, probe orientation, gain, depth and time were, respectively, 48.7, 67.7, 94.3, 54.9 and 36.1%. Greater improvements were achieved on technique, time and probe orientation.

Discussion: Continuous problem-based feedback enhances POCUS e-learning. Furthermore, continuous feedback helps guiding which parameters should be improved in future exams.

Is peer review an appropriate assessment and feedback tool in an online teaching environment?

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‘Cancer and the Genomic Revolution’ was the University of Glasgow’s first massive open online course (MOOC) on the FutureLearn platform, and will form the basis of a blended learning Student Selected Component (SSC) course for second year medical students. During the first run of this MOOC, students completed a short writing task which was then reviewed by their peers. With increasing focus on online platforms in teaching, it is vital to examine peer review in an online context. The aim of this research was to evaluate the students’ experience of this process and the quality of the feedback written by students.

Over 200 students took part in this task and almost all assignments received at least one peer review. Peer reviews were compared with staff marking, and peers’ qualitative comments categorised. The students’ experience was analysed qualitatively from in-course and post-course...
comments. Overall, many high quality reviews were generated. Students identified specific benefits to both receiving and giving reviews, including promoting deeper learning. However, a substantial proportion of students disliked or did not complete the task, most commonly due to time constraints. Only a small number of students disagreed with peer review per se. Online peer review can promote higher order learning in students who engage with this process. We discuss the implications of these findings for online and offline environments.

Take-home message: Peer review in a large online class can promote student learning. However, specific aspects of task design can alter student engagement with the process.