CASE REPORT

Shifting PBL, integrated learning and assessment to online format (Case Study)

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Introduction	COVID-19, pandemic, had led to an unprecedented challenge to medical schools worldwide. Being not an exception, the Faculty of Medicine – Suez Canal University (FOMSCU) faced quite a challenging situation that could have almost stopped teaching and learning..
Aim	This report was prepared to describe the actions taken by FOMSCU during this period to maintain teaching and learning including students and faculty feedback.
Methods	An integrated system of distance online learning was established, and offline alternatives were taken for students with poor internet connectivity Feedback of staff and students was collected from the end of July 2020 to the end of August 2020 using a specially designed questionnaire for this purpose.
Results	Students and faculty found asynchronous online teaching was as good as face to face however, they have some negative comments on synchronous sessions.
Conclusion	The overall experience was rated as useful by both faculty & students and should be maintained thereafter.
Keywords	Distance learning; online assessment; Students feedback, faculty feedback. Journal of Medical Education and Practice. ??:??–??

INTRODUCTION

In March 2020 and in response to the COVID-19 lockdown, all universities in Egypt are mandated to shift all their learning activities to distance learning, apart from the common challenges of making rapid transformation of all lectures to online format and fully operating the Moodle platform, our medical school aimed to maintain its problem based (PBL) and integrated modular learning strategies[1] via online learning. This report describes how we did that, what was the feedback of both students and faculty and what we plan to do in future based on our experience.

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Our already existing integrated modules from year one to year six were converted to the electronic format on Moodle. Lectures of each module were voice recorded, converted to videos and uploaded on related e-modules.

Demonstrations of laboratory skills and clinical skills were videotaped by the school faculty and similarly uploaded. Students are instructed to view online lectures and videos asynchronously according to a posted weekly timetable and to upload answers to formative short quizzes following each activity. In addition, the brain storming and debriefing sessions of the weekly educational problems as well as the multidisciplinary seminar were done via synchronous e-meetings. Students were instructed to follow the problem solving steps during the meeting till they come up with the learning objectives. The school pre-set objectives were matched with that of each class and the one with the best match was announced as the best class on the students' media groups. Compact discs containing all the online learning materials were sent to students who have slow irregular access to the internet. Consequently, their

progress was followed-up by e-mail or closed social media groups rather than LMS. Written exams were carried out as modified open book problem solving scenarios where new problems, relevant to each module were formulated and the students were asked to solve these problems following the same steps used in their PBL classes. The Exam problems were uploaded on Microsoft Teams Platform where students were divided into groups. Marking was carried out using a specially designed evaluation checklist for this purpose. Feedback was individually sent to each student via Microsoft Teams. Assessment of practical, field and clinical training were postponed till the students resume regular attendance.

Overall attendance rate of learning activities in LMS was 82 %. The rest were those who had slow irregular internet access and had to be followed-up by e-mail communication. Most students rated asynchronous sessions as comparable to face to face sessions. However, their rating to synchronous sessions was much less; only 20 % rated it as comparable to face to face sessions. Overall experience was rated as useful and should be maintained after resolution of the lockdown by faculty andstudents (93.3 % and 86.6 % respectively).

What lessons were learned?

After nearly three months in this experience, we were able to do the required shift to distance e-learning with varying levels of success in different learning activities. The most successful ones were the asynchronous lectures, lab demos and skill lab sessions. This echoes previous studies which showed that medical students learn and perform equally in live versus recorded lectures, as they are learning at their own pace, going back as much as they want, skipping, or accelerating through lectures[2, 3]. On the other hand, further work needs to be done to introduce more interactivity in the synchronous sessions, an expository teaching style is no longer sufficient to cope with the met challenges[4]. This probably needs a more structured outline for each session with better use of online functions like whiteboard and break-out rooms. Because medical schools might likely face similar deals in the future, we also have to think of hybrid ways for field training, practical training and clinical training.

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CONFLICTS OF INTEREST
There are no conflicts of interest.

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