

Experiencing Blended Learning during COVID-19

Dear Editor,

The COVID-19 pandemic has forced us to change traditional ways of teaching and learning in medicine. In a fluctuating time and situation, teachers and students have adopted various combinations of face-to-face (F2F) and online learning modes for maintaining educational activities.^[1] In other words, blended learning has currently been widely adopted as a practical educational strategy. As medical educators, we reflect on our first trial of blended teaching in an English-medium instruction (EMI) regional anatomy course during spring term 2020 and investigate the Chinese medical students' learning outcomes and their attitudes toward this blended learning.

A recent meta-analysis study^[2] statistically reviewed over 50 articles about blended learning in health professions and concluded that blended learning appeared to be more effective or, at least, as effective as nonblended instruction. This echoes the many recent studies in medical education that distributed learning systems (i.e., distant learning approaches) could not solely work, and suggests a combination of distributed and F2F learning systems to ensure learning efficiency^[3-5].

Within this context, in our case, the first 12 weeks of teaching were remote teaching through online platforms; the following 6 weeks and the final assessment went back to an on-site mode where the students had practiced anatomical skills in the gross anatomy laboratory under the teacher supervision. We compared the average scores in the final assessment (the anatomical specimen test and the multiple-choice questionnaire (MCQ) part in the written examination) between the target EMI ($N = 24$), parallel Chinese-medical instruction (CMI), ($N = 48$), and previous EMI of 2010 ($N = 25$). Multiple sessions of group interviewing with the students provided an in-depth reflection of their attitudes toward blended learning.

The main findings demonstrated that although the university and teachers adopted multiple methods to maintain educational activities, the students preferred the contact learning mode because it was easy to concentrate on and obtain hands-on experience in the laboratory classroom, which is fundamental to anatomy education. Regarding EMI teaching, the students felt that the bilingual teaching and assessment contained fewer English elements than usual. In other words, due to the uncertainties caused by the pandemic, the teachers had to compromise teaching in English and focus on content teaching.

In addition, analysis using the SPSS software (version 16.0) indicated that the COVID-19 outbreak negatively affected the target EMI students' academic performance. Specifically, the average scores of the target EMI class in both the anatomical specimen test and the MCQ part were lower than that of both parallel CMI and previous EMI counterparts. A possible explanation might be that the students lack adequate self-discipline and time management skills to accommodate blended learning. As the university had adapted its instructions according to the changing pandemic circumstance, there was not sufficient time for teachers and students for learning preparation and adaptation. Finally, fluctuating emotional status could negatively affect students' learning efficiency.

Overall, it is imperative that universities and schools provide mental health support to meet the students' needs. Further research could usefully explore the methods that facilitate students to cultivate self-discipline and improve their time management skills to accommodate blended learning under such circumstances.

Financial support and sponsorship

This study was financially supported by the Natural Science Foundation of Guangxi Province (2018GXNSFAA281299), the National Natural Science Foundation of China (81460479), and Guangxi Medical University (2019XJGQYB01).

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick Response Code: 	Website: www.educationforhealth.net
	DOI: 10.4103/efh.efh_319_21

How to cite this article: Qin P, Wei J, Lin S, Wei X, Huang S, Deng Q, *et al.* Experiencing blended learning during COVID-19. *Educ Health* 2022;35:35-6.

Submitted: 09-Aug-2021

Revised: 08-Sep-2022

Accepted: 28-Jul-2022

Published: 29-Sep-2022

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