

Teaching Strategies during the COVID-19 Pandemic in Taiwan, China

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Since the Covid-19 pandemic medical education, including physiology education, has been forced to change and adapt worldwide. In Taiwan, China, the impact of the pandemic has been relatively mild and therefore not been felt for long. Nevertheless, we have experienced a period of complete closure of in-person courses in the School of Medicine, Kaohsiung Medical University. In terms of general lectures, synchronous instruction was broadcasted live via Google Meet and asynchronous instruction was given by multimedia materials uploaded online in advance. However, innovative curriculum design was required for self-directed learning and flipped classroom learning,. We have tried to incorporate virtual software into physiology laboratory online to allow students to experience the modelling of cellular electrophysiology and to enrich students' learning outcomes. For collaborative learning, we have developed an electronic team-based learning (TBL) model which utilises specially-designed apps on smart phones for remote group discussions, individual readiness assurance test (iRAT), group readiness assurance test (gRAT) and application activities. We have also adopted online problem-based learning (PBL), with tutors providing cases and assisting discussions and students sharing their learning experiences with each other, both from a remote site. By incorporating physiology knowledge with these novel teaching tools, we are not only sustaining the teaching as usual, but also deepening the learning of physiology of students. We have found that students are comfortable with these approaches and that overall they are satisfied and learning well. These novel approaches to teaching physiology will still be useful even after the pandemic.