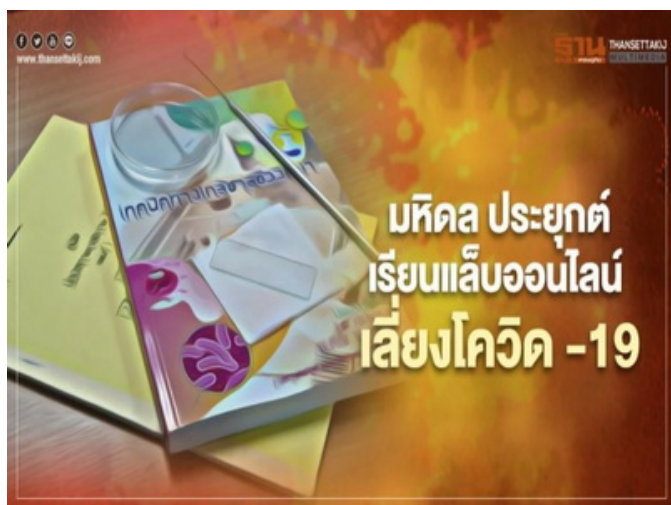


New Online Learning Initiatives



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Due to the viral spreading of the COVID-19, it is unable to perform normal teaching and learning classes. Therefore, the Faculty of Pharmacy, Mahidol University (MUPY) has to create a new teaching and learning approach and platform corresponding to the emerging pandemic. Online teaching and learning are the new approaches, but it is not allowed the students to experience physical devices and real laboratory supplies. As a result, MUPY started a new teaching and learning approach by delivery of learning materials and appropriate laboratory supplies to undergraduate students by mailing service. This approach aims to maintain their learning skill and laboratory skill by using the delivered laboratory materials that are applied to use in the online classes. Furthermore, when they are allowed to resume the normal classes on campus in the future, they will be providing some drug dispensing practices in addition to those delivered to them by mail. The special case study will be also prepared for them so that they will get familiar with the practices and achieve learning objectives. □□□□The Faculty of Pharmacy, Mahidol University (MUPY) delivered learning materials and laboratory supplies to students' registered addresses by mailing service for the online classes including herbal seed (*Senna alata* (L.) Roxb) planting, drug dispensing with special techniques for evohaler and accuhaler. Besides, (MUPY) created LINE group chat and several virtual classrooms using Microsoft Teams, Cisco Webex, PowerPoint, and Mentimeter for communication and knowledge sharing. The learning materials and assignments were also disseminated in the virtual platform. □□□□The Faculty of Pharmacy evaluated the students' performances by using the assignment such as the video clip to report their learning outcomes along with the scoring system. It was found that 52.6% out of the students received scores in the range of 20.0 - 24.9 scoring whereas 27.1% out of them received scores in the highest range of 25.0 - 30.0 scoring. In addition, The Faculty has observed the students' willingness to practice and their behavior during online laboratory learning compared with those in the normal laboratory classes, it was found that they could prepare the experiment correctly, and most of the students were able to conduct experiments with the correct technique, fewer errors, and completed in a timely manner. Overall, the students were very satisfied with this approach. □□□□The online laboratory classes allowed the students to practice and develop basic laboratory techniques by themselves at home. This was regarded as a new adaptation of learning as they can practice and experience real physical laboratory supplies at home, resulting in increasing students' confidence in the correct technique when the laboratory classes resume the normal way. As a result, they will be confident and can perform drug dispensing correctly. Also, they will be able to do so at the hospital's outpatient department once the viral spreading gets resolved in the future.