

## The Experience of Creating a Blended Learning Programme in the Physiotherapy Department

Shiling Caroline CHUA, Bee Hong Catherine CHUA, Feng Cai June ENG  
Physiotherapy, KK Women's & Children's Hospital, Singapore



### Educational Story

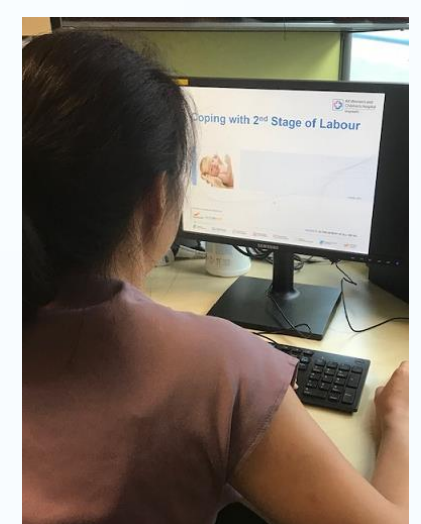
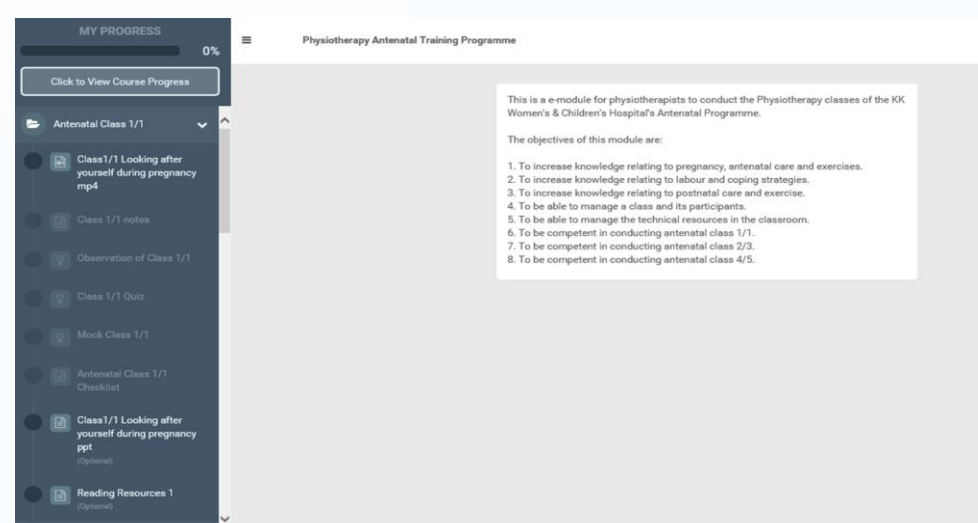
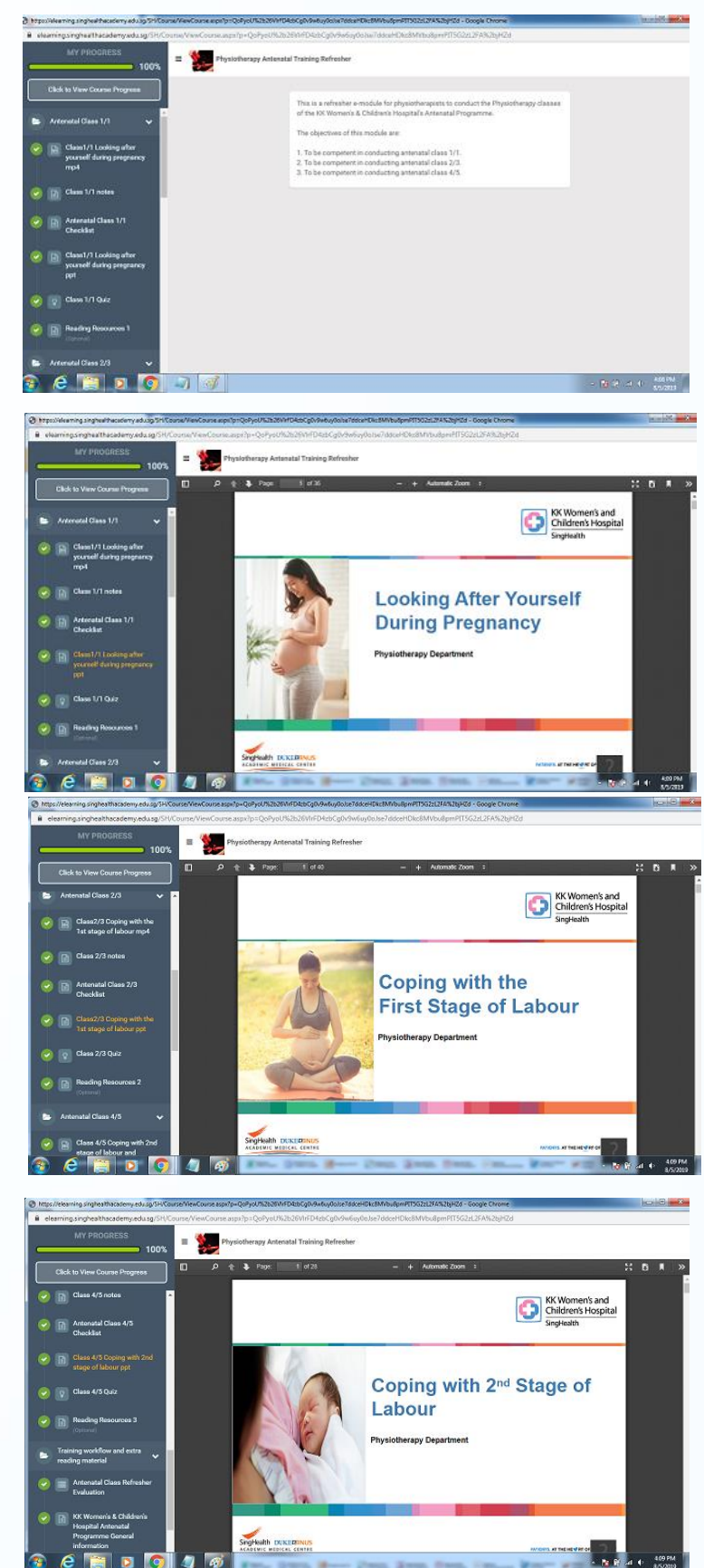
All physiotherapists in KK Women's and Children's hospital learned to conduct physiotherapy component of the KK antenatal programme. The KK antenatal programme is conducted by different healthcare professional which comprises of doctors, nurses, pharmacist, dietitians and medical social workers. There are 3 physiotherapy sessions of 2 hours classes scheduled among the other professional classes and spreading over 2 month for the participants to attend. These classes are attended by pregnant women and their partners.

For many years, the antenatal programme training for the physiotherapists was done through authentic learning (1). Trainees were provided with materials for the class contents before completing two mandatory class observations and then assessed on their competencies to conduct these classes. The trainee was required to observe 12 hours before assessment, which would need a total of 6 hours for a single course of the programme. This excluded the time of the trainers who must spend 6 hours to check their competency. Such rigorous training posed a challenge for the department as it was time consuming for both the trainers and trainees. All the antenatal classes are held after office hours which is 6.30 pm on weekdays and at 9.00am on Saturdays. Often, the dates and timing would clash with the staff personal time. In addition, problems with the suitability of the classes for observation is limited by the class sequence of the sessions and availability of the trainers. These problems led to a bottleneck effect of staff waiting to be trained, resulting in insufficient staff running the antenatal programme.

To overcome this challenge, the educators in the physiotherapy department collected feedback from trainees and trainers involved. After an in-depth discussion with support from literatures, the educators acted on the feedback and leverage on the technology available (1, 2). The educators utilized the SingHealth Learning Management System (LMS) to create the Antenatal Class e-learning module (ACE-module). The ACE-module is divided into three sequential lessons for the classes that the physiotherapist conducts in the antenatal programme. Each lesson contains a voice-annotated video presentation of the class, lecture slides, additional reading materials and a quiz. Successful completion of each level then 'unlocks' the next level of the lessons. Observation and assessment of actual class are pre-scheduled. Trainees must pass the quiz, observe one actual class, conduct a mock class before conducting an actual class for their competency. Trainees are given a month to complete each lesson.

This combination of blended learning and authentic learning garnered positive feedback (2). Trainee reported that this model of learning is easier and convenient where they can learn in their own time. The sequential design of the e-module also enabled trainees to "see the process as a whole instead of separately existing." With the ACE-module, the trainee only need to observe 1 round of classes thus saving 6 hours of the trainee's personal time.

With this exercise, the educators felt a sense of achievement in easing the path of learning and teaching. Time and manpower were saved with equal success of trainees passing the competency. In the next phase of development, the educators hope to improve the Ace-model further to include videos of live classes. The educators have learned and gained confidence from this experience which motivated them to strive further to improve the training efficiency and effectiveness within the department and to introduce blended learning in other areas of competency training (3).



### References

1. Lombardi, M.M., 2007. Authentic learning for the 21st century: An overview. Educause learning initiative, 1(2007), pp.1-12. Blended learning
2. White, S. and Sykes, A., 2012. Evaluation of a blended learning approach used in an anatomy and physiology module for pre-registration healthcare students. ThinkMind/IARIA.
3. Rowe, M., Frantz, J. and Bozalek, V., 2012. The role of blended learning in the clinical education of healthcare students: a systematic review. Medical teacher, 34(4), pp.e216-e221.