

Webinar Q&A Report:

Adapting the Teaching of Nursing Students During Lockdown with Flipped Classrooms and Blended Learning Techniques

1. Are your health science pre-nursing courses taught through the nursing department?

R. Wesselink: In New Zealand, students can enter directly into nursing degree courses if they have the required entry criteria from high school. So, I guess that the answer to your questions is yes, our health science students are taught in the nursing department. Our health science tutors are a mix of nurses and physiologists.

2. Can you please recap the difference between LT and the traditional lesson?

R. Wesselink: With traditional teaching we taught a 2-hour lecture, followed by a 2-hour lab and then 1-hour homework. With our new flipped and blended model using Lt we have students work through a 2-hour pre-learning lessons, before coming to a 2-hour tutorial each week. They also have 4 x 3-hour laboratory classes over the 15-week semester.

3. How do you do online learning for student in a clinical phase of their education (e.g., during clerkship)?

R. Wesselink: While we use clinical examples to illustrate the relevance of the bioscience our first-year students are learning, I don't work in a clinical context as such. [ADInstruments](#) probably has other clients that could describe how they use Lt for learning in clinical contexts.

4. Do you have an average of time that teachers used to produce audio or video materials?

R. Wesselink: No, not an average time as such. It really varies with the topic and the tutor producing the video and audio material. If I was creating a 2-minute video summarising vision, for example, it might take me an hour to prepare my slides and then make my video recording.

5. Are labs currently taught in person?

R. Wesselink: Yes, they are. We have recording of experiments and model experimental data available should we need them in the future.

6. Were the short videos produced using cell phones? Or did you use more professional video cameras?

R. Wesselink: I've made my videos using PowerPoint and Zoom. Me and my colleague use a cell phone to record experiments. It's very much been an amateur production to date, but we've had no complaints. The students seem happy to see and hear their tutors in the videos.

7. Do you require attendance for students, and did this change when you moved online?

R. Wesselink: We require students to attend classes yes, but there is no consequence for not attending as such. If students complete assessments on the due date and are passing, there is consequence for not attending. We record and track attendance closely and make contact with students that show pattern of absences. With regard to moving online during our March lockdown, yes, we still tracked attendance and contacted students who were frequently absent or were not progressing through their online lessons. It was difficult for some students to attend synchronous Zoom sessions, but these were recorded and made available for asynchronous use. Students appreciated having the recording of Zoom tutorials made available to them. I hope this answers your question!

8. How long did it take to develop the flipped course materials?

R. Wesselink: It took us about a year to develop our flipped course material. We developed it around teaching of our classes, so we were not working on it full time. It took about 10 hours to prepare a lesson for what we normally cover in a 2-hour lecture. So, there is an initial input of time required and creating lessons in Lt was very easy. Once the lessons are created, they are very easy to update as required.

9. Can you expand on your teaching of hands-on laboratory concepts during the pandemic?

R. Wesselink: Yes. One example would be in our blood glucose laboratory class. We had six staff members who had fasted for 2 hours consume the same amount of carbohydrate in the form of jelly or rice. We recorded the process of taking a blood glucose sample. We took a control blood glucose measurement, then other measurements at 15, 30 and 45 minutes. These results were photographed on the glucometers and made available to the students in Lt. The students added the blood glucose readings to a spread sheet in Lt, which was linked to a graph in the same lesson. As the students added the blood glucose measurements, they could see the graph change over time. In our Zoom session we discussed the changes in blood glucose seen and related this to the form of carbohydrate consumed and the role of insulin and glucagon in regulation of blood glucose concentration.

10. My main difficulty today is how to assess students using a remote learning. Any advice?

R. Wesselink: Open book questions in online tests are where I think we're headed in 2021. We're also rethinking the structure of our questions and adding more image-based questions to make them less "Googleable".

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ADInstruments, Inc.

77 Vogel Street, PO Box 587
Dunedin, New Zealand, 9016

<https://www.adinstruments.com>

Email: sales@adinstruments.com

