BACHELOR OF NURSING STUDENTS IN YEAR 2 OF THEIR STUDY

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This case study describes an approach to assessment used in Otago Polytechnic's Bachelor of Nursing programme. The case study (Box 1) is considered with reference to Scott's key tests for powerful assessments (Box 2, Scott 2016).

With case-based learning, students develop skills in analytical thinking and reflective judgment by watching, discussing and interacting with complex, real-life situations. In nursing most case based assessment is clinically focussed with little evidence that it is used in the sciences. This means that there is a disconnect between how we want our students to view the sciences ie as an integrated component of all theory. Mostly nursing sciences are taught by scientists who are not nurses or vice versa. We have an advantage that nursing at Year 2 is taught by a nurse who is also a scientist. This means that context is given to the material with stories and anecdotes and experiences from practice that are relevant and enable the links to be made.

One of the many difficulties that Bachelor of Nursing students often mention on their student feedback is the amount of content they are required to learn for their examinations. We still use this method of assessment widely in our school for our theory courses and it does come with some challenges for the students. The courses most affected by this are the sciences mainly Year 1 Bioscience and Year 2 Pathophysiology.

For both of these courses we have introduced LT (KuraCloud) as an additional learning resource for the students. In Year 2 the programme is specifically used to augment the knowledge of the student in particular pathologies that are of importance to the NZ health environment. The case studies include actual patient data, video vignettes where the patient, family, nurses, physicians, dieticians etc discuss the case, their experiences, case management, diagnosis, treatment protocols, and medications anything relevant to the students understanding of the disease. Patients have given permission for their image and information to be used in a learning environment though the students must be aware of the privacy issues related to the use of the Lt material.

These case studies are also the platform for the end of year examination for the course. Historically Pathophysiology has been taught didactically and assessed with 2 exams to evaluate semester content. This for many years resulted in a large number of exam fails and cumulatively, course fails.

In 2014 LT was implemented and the assessment profile changed to reflect the student feedback and to try and reduce the amount of rote learned content that students needed to retain without any application to their practice. Four smaller tests were introduced these were put into Moodle our Learning Management System and the students sat these in a controlled environment with a specific timeframe. The questions were taken from the ''Test Bank' for the course so were the same or similar to what had been asked historically.

The results can be seen in the change to the course completion success. Three years of follow up shows that student success in a Year 2 pathophysiology course has increased significantly with this intervention. 2014 n=112 (7 course fails), 2015 n=111 (0 course fails), 2016 n=98 (4 course fails). This is in comparison to the 2 years prior to implementation; 2012 n=106 (12 course fails), 2013 n=110 (12 course fails).

Who: -Bachelor of Nursing students in Year 2 of their study

What: Use of an online case study model to deliver integrated knowledge and information showing application of nursing theory while linking to pathophysiology and clinical practice.

When: Students have face to face lectures for all topics. Six have been selected to discuss and develop further in online tutorial leading to the case study, which is discussed in small groups. The online learning is available from the beginning of the year to all students , the accompanying lecture material is taught across 8 theory weeks the case study group work is repeated in 4 blocks with a quarter of the class in each block – this learning may be asynchronous to the lectures but can be related to other aspects of their learning such as clinical practice and other theory courses.

Where: Learning occurs in class with structured lectures and group tutorials. Other learning such as the Lt component are able to be looked at, discussed, gone through as many times as the student wishes

How: Student assessment changes to 4 smaller online tests Final examination case study based

Why: Student feedback showed that many were very unhappy with the structure of the examinations and struggled to learn the content and put it into context with their other learning.

Box 1: Nursing pathophysiology assessment summary

- The assessment task or tool under consideration:

- Attracts high levels of positive feedback from graduates looking back on the best aspect(s) of their studies;

- Clearly addresses the key capabilities set down for the program/unit, especially those identified as characteristic of work ready plus graduates in the field of education concerned;

- Brings to bear different perspectives, taps into multiple domains of learning;

- Is integrated – that is, it concurrently seeks to assess key personal, interpersonal and cognitive capabilities in the profession/discipline concerned along with appropriate and effective use of relevant competencies;

- Is not just problem-based but solutions oriented; involves doing not just knowing;

- Has a whole-of-program focus;

- Directly relates to what has been learnt;

- Produces representations of what students can do rather than just a grade

- Can be digitally enabled

- Is, whenever possible, dilemma-based /'wicked'/ real-world focused/authentic and demonstrably relevant to effective early career practice;

- Can be used for learning (formative) as well as of learning (summative);

- Is scalable.

Box 2: Powerful assessment criteria

STUDENT FEEDBACK

"The mini exams were really helpful, as I found that learning less knowledge but in more depth for each examination helped me to consolidate this knowledge, as opposed to having two big exams and not being able to remember anything due to the sheer volume of knowledge required. I was then able to put this knowledge into practice during clinical. All in all, I found this learning style was very effective."

"I enjoyed the broad range of topics and the tutorial/case study part."

"This was my favourite part of the course, it was very interesting, and very informative. I liked how much of what we learnt was related back to nursing practice, rather than being purely pathophysiology. I think it was good having four tests throughout the year, rather than one big exam, and the technical difficulties of having to sit the tests on computers were well dealt with."

"Interactive, exciting, interesting."

"The content was relevant to what I saw on the wards, which made me interested in learning it. The lecturer had a number of real life stories to go alongside these lectures, which helped consolidate the information."

"Everything that I learnt in patho was beneficial and very useful to my practice and learning. How it has been structured is perfect, and I think it works well. I enjoyed this paper a lot, it is interesting, and I can see how our learning is relevant to practice."

Karole Hogarth is a Principal Lecturer and has worked at Otago Polytechnic since 2005. During this time, she has worked within the Schools of Occupational Therapy, Midwifery and Nursing. She is a Registered Nurse (WINTEC) and holds a Bachelor of Science (First Class Honours) and a PhD in Anatomy, both from the University of Otago. Her research interests are science education, simulation, reproductive biology and technology in education.

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