

Innovative learning resources – Incorporating fun into first year cell biology

Tracy Douglas, Susan Salter and Kevin Lyall

School of Human Life Sciences

University of Tasmania.

First year students require a variety of resources to challenge and encourage effective learning. In the School of Human Life Sciences we teach students enrolled in one of six Human Life Science Degrees as well as service teaching students enrolled in Nursing and Human Movement degrees. Consequently, our first year cohort represents a diverse group of students demonstrating a large spectrum of academic abilities, learning styles, life skills and interests. As many of our students lack basic foundation knowledge essential to tertiary-level human biology, we successfully applied for a University of Tasmania Teaching Development Grant in 2004 to enable the development of a self-directed learning resource suitable for all student needs. The aim of the resource was to engage students in learning and applying biological concepts, in particular those pertaining to the human body.

In 2006 we introduced a CD based cell biology resource within which were embedded multiple learning styles. This was utilised by first year HLS students (in 2006, 2007 and 2008) as an independent learning resource, initially introduced during a didactic teaching session in CXA171 Cell Biology and Function. The resource contains tutorials, concept quizzes and application quizzes in each specific module, with interesting facts embedded within each module to stimulate student interest. An additional teaching session in CXA171 involved students engaging in a game-based platform linked to this resource. This was a highly engaging teaching session for both students and teaching staff, and enabled “fun” to be incorporated into the didactic teaching of the unit. Nursing and Human Movement students enrolled in other HLS first year units were also able to access the resources via MyLO (the learning management system at University of Tasmania; formerly WebCT Vista).

The effectiveness of the resource as a whole was demonstrated by personal feedback, student evaluations of teaching and learning and unit results. In particular, the game resource was the most highly rated of all the formats. 84% of students rated the resource’s ability to engage learning as higher than average, while 97% of students stated that the game was a fun learning experience. Within the CD resource, the animations and visual information were well received and higher achieving students found the application quizzes challenging. Teaching staff have found that incorporating fun activities into first year teaching has improved student engagement and enthusiasm for learning. We are continuing to use the student and peer feedback to improve the resource.