



Centre for  
Learning and Teaching

# focus

on university teaching and learning

Image by Oliver Braubach (used with permission)



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From the Director

Building on the buzz surrounding the Dalhousie Conference on University Teaching and Learning last April, this issue of Focus brings the ideas from an outstanding conference keynote to our larger community and adds new ideas from Dalhousie colleagues about integrating diverse technologies to help students achieve success in their learning.



Lynn Taylor  
Centre for Learning  
and Teaching

**EDITORS**

Suzanne Le-May Sheffield

**EDITORIAL ASSISTANTS**

Janice Fuller  
Michelle Soucy

**PUBLISHED BY**

Centre for Learning and Teaching  
Dalhousie University  
PO Box 15000  
Halifax, NS B3H 4R2  
Ph: (902) 494-1622  
Fx: (902) 494-3767  
Email: CLT@Dal.Ca

www.learningandteaching.dal.ca



**DALHOUSIE  
UNIVERSITY**  
*Inspiring Minds*

## How Online Technologies Have Nurtured a Connectivist Learning Space for First-Year Students and Their Teachers



*Sophie Karanicolas and  
Catherine Snelling,  
Oral Health, University  
Of Adelaide, Australia*

We teach in the Bachelor of Oral Health (BOH) 3-year undergraduate program offered by the School of Dentistry, at the University of Adelaide, Australia. Since its inception in 2002, around 30-35 students have enrolled in first year with a significant number of mature age students in each cohort. Our students come from a diverse range of life and work experiences. Many of them come from non-biological educational backgrounds and have varying confidence levels in the use of social and e-learning technologies. Common to all students starting university, our BOH students encounter a number of assimilation issues as they begin the transition to post-secondary education. The BOH program is primarily delivered in the traditional

health science framework of long student contact hours, teacher-driven learning experiences, extensive face-to-face group work and ‘hands on’ clinical practice. However, the most significant learning challenges that our first year students appear to encounter (based on both formal and anecdotal feedback) are in the Human Biology course, and these issues are understandably compounded for those students with no biological background. The subject matter is content-rich and highly specific in nature, and incorporates new and complex terminology and concepts that require clinical application.

As teachers in the Human Biology course, we recognized that there was a significant need to implement major changes in the way the learning material was both designed and delivered. Initially we developed our own social network of educators to build on our individual strengths and explored new delivery modes that would enhance student-teacher connectivity, as well as alleviating long hours of ‘on campus’ learning for our first year undergraduates. *(continued on page 2) >*

(continued from page 1) > We soon recognized ourselves as ‘digital immigrants’ in this ever-evolving area of education, and subsequently enrolled in a postgraduate course in online learning conducted by the University of Adelaide’s Centre for Learning and Professional Development (CLPD). This was one of the best decisions we have made in our professional lives, and gave us the skills and confidence to explore ways to design and deliver effective online learning opportunities. Initially our aim was to simply offer our students greater flexibility and choice in how and where they wished to undertake their learning in human biology, but more importantly (and somewhat unexpectedly), we began to see that we could use these social learning tools to enable students to form networks with their peers and teachers alike.

These networks developed in an evolving ‘connectivist’ environment that is especially important in the first year experience of higher education. The importance of forming these social learning networks reinforced the “...amplification of learning, knowledge and understanding through the extension of a personal network” (Siemens, 2005). These networks develop the students’ ownership of their own learning as a collective entity, generating a common sense of purpose, vision, and shared values.

The main online social learning tools that we have used to date include blogs, interactive on-line learning modules (IOLMs), podcasts we refer to as “Quickbytes”, and wikis. We have always set out to select the ‘right tool for the job’ as probably the most critical step – as it has to be a good fit.

We use our blogs to foster our first year students’ on-line communication skills (and confidence for the less inclined) and as a social and study support system as they settle into university life. Here is a link to one of our blogs: <http://bohoney08.blogspot.com>

The IOLMs were primarily developed to help students become familiar and confident with key concepts in human biology. They are able to access

the enhanced and narrated PowerPoint presentations up to a week ahead of the face-to-face lecture. The novice ‘biologists’ have an opportunity to listen, watch and ultimately learn new terms, concepts and applications of topics that are entirely new to them – and they can replay the module as often as they like. Here’s a link to our IOLM on Embryology, a perennial challenge to our students: <http://ajax.acue.adelaide.edu.au/~allan/embrology/player.html> In addition to this approach to learning, the learning quiz checkpoints embedded at intervals in each IOLM are linked to our learning management system. We can access the results and provide our students with group feedback. This approach also enables us to focus on any poorly understood areas in class time, making this a more valuable use of on campus time.

We use our blogs to foster our first year students’ on-line communication skills (and confidence for the less inclined) and as a social and study support system as they settle into university life.

After producing a number of IOLMs we recognised a need for short on-line learning opportunities, which we have termed “Quickbytes”. As the name suggests these on-line learning tools are around 5 minutes in duration and serve to re-emphasize and reinforce key underpinning concepts in a succinct and focussed way. This Quickbyte is one we use in the oral histology topic in human biology: <http://www.youtube.com/watch?v=Y1AUSVWq2h0>

Our wiki-based student research project is probably where a lot of the skills and confidence levels that have been developed by our students (and ourselves) come together. Students work in groups to research and discover how broad areas of general health impact on oral health, and use the wikis as an on-line repository as well as a vibrant and often transformative platform where exploration and discovery can occur. Each group is e-facilitated by one of the teaching team, and regular contact is made using the wiki discussion tab. Consequently, the perennial group work problem of inequitable contribution is transparently dealt with by the wiki’s history tab, as it highlights each member’s input.

As for us the educators, our team approach was not a forced partnership, or a ‘contrived collegiality’ (Hargreaves, 1995), instead it naturally formed from a shared teaching philosophy that placed the students at the core of all learning activities. From our experiences it seems that connected learners

need connected teachers, as Shindler (2004, p. 274) reinforces by saying "...good teaching has always needed to be collaborative, and collegiality continues to be a defining characteristic of highly effective schools." The support we continue to receive from the CLPD's Online Education Centre has been invaluable and through their showcasing of social learning tools, we have been able to create and nurture a connectivist learning space.

Finding a group of like-minded colleagues across disciplines and schools, and consequently forming a research group has enabled us to share e-learning experiences in a collaborative peer review process that encourages reflection and ongoing development of our initiatives.

The value of ongoing evaluation and student feedback on the effectiveness of our on-line learning tools is never underestimated, and we see this initiative as one which will continue to evolve and enhance the learning experiences of our students, our colleagues, and ourselves as educators.

If you would like to contact Sophie or Cathy with questions or comments, please email them at: [sophie.karanicolas@adelaide.edu.au](mailto:sophie.karanicolas@adelaide.edu.au) or [Catherine.snelling@adelaide.edu.au](mailto:Catherine.snelling@adelaide.edu.au)

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## Forum on Student Engagement

What's happening in Student Engagement at Dalhousie?

**Date: January 26th, 2012**

**Location: Great Hall, University Club**

An opportunity for Faculty, Instructors, and Teaching Assistants to gather together to share ideas about student engagement activities across disciplines.

For more information, please contact Deborah Kiceniuk, PhD, Associate Director, Centre for Learning and Teaching: 494-3808 or at [deborah.kiceniuk@dal.ca](mailto:deborah.kiceniuk@dal.ca)

