

I am a Senior Lecturer in Biological Sciences and my research is on bioacoustics and biological sonar.

I will tell you how I use e-learning in a course called Science and Success: Writing, Speaking and Communicating Science. This compulsory 6-week course teaches transferable skills to about 130 Biology students in their 2nd year.

In this course students embark on five peer-group activities. All are within a biological context and often include role play. So first, students write and anonymously peer review scientific papers. Second, they all give a presentation. Third, they apply for a job in biology and then shortlist and interview each other in peer panels. Because many Bristol students are interested in science journalism we then let them write texts for ARKive.com - the audio-visual record of life on Earth. Science journalists annotate and mark these student texts and most get published online. All these elements are peer assessed. By the end of week five each student receives an extensive 10 page feedback package on their performance so far. They then use this feedback to write a Personal development plan.

18 months ago I switched from a paper-based system to e-learning. All aspects including submissions, peer collaboration, feedback, and marking happen online now. This year we had 14 deadlines in 6 weeks, including 390 manuscript submissions, 130 job interviews, 50 presentations and students worked in 70 different peer groups. Over 10000 individual marks and feedback items were collected online that went into 130 personal feedback packages.

In short, e-learning in this unit greatly improves learner experience and independence, and massively reduces staff workload allowing us to run the unit in all its complexity in the first place.

I will now give two brief examples of how exactly we use e-learning:

We teach scientific writing skills through online peer collaboration. Students submit early manuscript drafts to small anonymous groups on Blackboard and there they provide detailed mutual comments. That way, students see good and bad examples and learn from teaching others. The final manuscripts are then peer marked online. Students take refereeing seriously because their helpfulness is also peer marked. Online peer collaboration is an incredibly powerful learning tool that our students really like.

The National Student Survey shows that students want more individual feedback. We use Blackboard surveys to collect incredibly detailed feedback including 1,700 marks and 5,500 comments on individual performance. Feedback is exported to excel and a mail merge is used to print individual feedback packages with 80 items of individual and 3 pages of generic feedback.

This is a very important part of the School's work to further improve "Assessment and Feedback" scores in the National Student Survey.

Students themselves consider this a "great unit", and one said "I went into it thinking it was a waste of time but [it is] VERY helpful!" Another commented: "you will be guided through the process and come out a better, more confident person"

To conclude: Creative use of Blackboard tools tremendously improved learner experience as well as detail and timeliness of individual feedback. The

same unit or its elements but 'flavoured' with a different subject could easily be used in any Department. I think that we will see many more examples of computer-supported collaborative learning - or elearning 2.0 - in our future teaching.