Use of Canvas Quizzes in Canvas to Enhance Laboratory Teaching and Safety

In this blog post Dr Jillian Thompson and Dr Dan Corbett from the school of Chemistry and Chemical Engineering describe about how they have used quizzes to prep students ahead of lab classes.

As with many aspects of teaching and assessment, a significant contribution to students’ success in laboratory classes is the level of preparation they undertake before attending the class. Preparation for laboratory sessions generally requires students to review theoretical content that they previously studied during lectures; gain an overview of what experiments they will do and how they will do them; and importantly, understand the risks that the experimental work will pose to themselves and others, and the steps they should take in the event of something going wrong!

However, there are many challenges to providing the students with sufficient information to describe the experiment and safety issues before they have seen the experiment in the lab; and to do this succinctly and clearly so the main points they need are not lost in too much detail.

This can lead to students being less prepared than they realise when they attend laboratory practical sessions and the administration of these being notoriously complex and time-consuming for staff to manage. Making this
process more efficient and giving students feedback, focused on the key points they need to know, before attending class not only allows for better student preparation but also more time during class for practical teaching and learning.

Until now, it has not been possible to easily assess students’ preliminary knowledge of practical experiments before the class. Likewise, the assessment of students’ knowledge of the health and safety considerations has been difficult to assess past a cursory self-reported check that they have read the appropriate documents, and understood them. Collection of paper-based assessments covering these points, at the start of the laboratory class also leads to more pressure on technical staff at a time when their expertise in the lab is most needed.

Within the School of Chemistry and Chemical Engineering, Dr Jillian Thompson and Dr Dan Corbett are leading the development of a robust approach to enhance practical aspects of teaching, in addition to streamlining the delivery of laboratory practical sessions, which makes use of a number of the basic functional aspects of Canvas. This project has so far allowed staff to make more valuable use of their time during practical classes, and enhanced students’ learning, understanding, and enjoyment of experimental work!

Watch the video below with Dr Dan Corbett, Lecturer (Education) to find out more about this project, and the benefits that have resulted so far.
Further information:
What are Canvas Quizzes?
How do I create a Multiple Choice quiz question?

Dr John Topping: Feedback & ‘Feed Forward’ with Video and Audio Comments

Dr John Topping is a Lecturer in Criminology in the School of Social Sciences, Education and Social Work, with research specialising in the area of policing. He has been using audio and video feedback for student assignments for years. We interviewed him about the benefits for students and staff on using video and audio feedback (and ‘feed forward’).

How to...

We’ve created a short video below to show you how you can add audio or video comments to assignment feedback in Canvas.
Three Things – Dr Dan Corbett

At the outset of this post, I should state that I haven’t had the pleasure of being an early adopter of Canvas, which makes this post a little bit different to the other “Three Things” posts which you might have read so far! Having recently taken up my post in the School of Chemistry and Chemical Engineering, many of my responsibilities focus on designing new online/blended content for both our Chemistry and Chemical Engineering students, but perhaps most importantly, I’m supporting my colleagues to create immersive and engaging online content ahead of our Canvas go-live this September!

In this blog post, I’ll focus on some aspects that I think are important if you’re starting out with Canvas for the first time, and I really hope this will help you if you’re just about to embark on building your modules!

What is your favourite Canvas feature, and why?
Quizzes, quizzes, quizzes! On the face of it, the use of quizzes can seem a bit “flat” – but with a little bit of imagination, the creative use of quizzes can save you lots of time across a range of aspects of module delivery, making your module much more efficient – this can also allow your students to fully engage with your content more effectively, and also help them to self-monitor when it comes to their learning outcomes!

So far, within the builds that have been going on within my School, I’ve used quizzes in lots of ways, which aim to meet a mixture of objectives, including:

- Allowing students to assess their knowledge and skills at the start of a module, so that they can more clearly recognise their development as they progress, and reach the end of a module
- Assessing students’ health and safety knowledge as a pre-requisite for entering laboratory classes
- Carrying out pre-laboratory assessments to ensure that students fully understand the theory that they’re about to put into practice

Using quizzes in these and (many!) other ways, and making sure that they’re used to their fullest extent (including providing detailed feedback in response to wrong answers and right ones!), can really ensure that students know what they’re learning, and why they’re learning it, while also empowering them to self-diagnose any issues they might be having with your module’s content – before it’s too late!

What would you say to colleagues who may be hesitant to use Canvas?
The first thing I’d say is that I understand! Setting up a module on Canvas can feel like you’re starting your module again from scratch, which is daunting, particularly as we’ve all been using QoL for so long!

The reality is, fortunately, that there is nothing to be scared of – the majority of activities within Canvas will already be really familiar to you, as the rich content editor (RCE) is very similar to the word processing/presentation/spreadsheet software that you’re using already! It’s important to remember too that you’re NOT expected to start from scratch – with a few simple tweaks, content which you’ve already created can be easily transferred to Canvas in a way which is much more engaging, immersive, and visually pleasing for your students – chances are, you’ll even enjoy using the platform, and setting your modules up – once you know the ropes!

The other major thing I would say is that simple, straightforward content is often the most effective – no one needs you to learn how to code in HTML5 overnight, or deliver your course entirely in virtual reality! Using the tools within Canvas to create a clean, simple module, which gives students a clear learning pathway, will be very effective, and help you, and your students, to meet objectives and succeed!

Can you show us three things in Canvas which have worked well for you?

1 – Using student view to see your course from the perspective of your...
learners

2 – Using careful file naming to automatically update linked files across your module

3 – Using requirements to guide students, and ensure they engage with crucial content – particularly at the start of a module

The videos above are part of a larger series of “bitesize” how-to videos which are freely available on YouTube – you can access these videos, and many more, by clicking HERE!

Three Things – Dr Neil
What is your favourite Canvas feature, and why?

The Canvas Calendar. At first it looks like a fairly simple shared calendar, but when used with the Appointment Tool it’s superb. I use to schedule assignments, book meetings with students and to manage my end of semester demos.

What would you say to colleagues who may be hesitant to use Canvas?

Start with something simple. Log-in and have a look around the
interface. It’s easy to use, so once you get logged in for the first time you will start to find ways that Canvas can be used in your teaching. After that, if something you want to do isn’t obvious then try one of the drop-in clinics (you can see the full list of dates and times here).

Can you show us three things in Canvas which have worked well for you?

1. Canvas makes it easy to organise your learning materials in a way that suits your module. It’s also really straightforward to embed video and other rich content into your material.
2. Arranging student meetings is so straightforward in Canvas. As I mentioned above, I’ve used it for lots of types of meetings, but I will demonstrate how it can be used to schedule a large number of individual marking sessions.
3. I do a fair bit of group work and I’ve found Canvas to be helpful. I use the ‘self sign-up’ feature to allow students to arrange themselves into groups and I then use the ‘group homepage’ feature to send feedback to each group after our meetings.

#1: Organising Learning Materials

#2: Arranging Meetings With Students

#3: Working With Groups Of Students
Dr Sharon Eddie Parkinson, School of Medicine, Dentistry and Biomedical Sciences

What is your favourite Canvas feature, and why?

I love that I can email all of the students in a module very easily via Canvas. I do find the Gradebook very helpful and straightforward as well.

What would you say to colleagues who may be hesitant to use Canvas?
Canvas is incredibly user friendly. If you can type a Word document – you can set up a Canvas page. It can be as simple or as complex as you want it to be, but either way it is easy for both students and instructors to use.

Can you show us three things in Canvas which have worked well for you?

1. Discussion boards are a great way to answer student queries quickly and it ensures you provide the exact same answer to the whole of the class
2. Canvas is excellent if you want to try a ‘flipped classroom’ approach – i.e. you can provide lots of digital resources for your students.
3. Canvas’ Gradebook is really useful for releasing module marks and feedback (especially to large classes)

#1: Discussions Boards

#2: Interactive Library Resources

#3: Grades and Feedback management of large groups

Coming soon …

Three Things – Dr Stephen
What is your favourite Canvas feature, and why?

Canvas is fast, stable, and well-designed. It is also brilliantly flexible in terms of what it allows me to do for students. It has transformed how I communicate with them. The Announcements feature works brilliantly to keep students informed of day-to-day updates on modules and the Inbox feature means that I mostly communicate with students via Canvas, meaning my actual email inbox deals with non-teaching related messages – a real boon!

What would you say to colleagues who may be hesitant to use Canvas?

Get stuck in. If you have used Facebook, WordPress or any other modern web app, Canvas will not intimidate you. But be prepared: decide what content your module needs before you
login to Canvas. If you organise your module according to weekly topics, collate your readings and, if you are using them, any multimedia resources you wish to embed, on your desktop first. Write brief ‘overviews’ for each week’s topic with which to orientate students.

If you collect this material in advance, you’ll find building your module on Canvas quick and straightforward. The ‘Files’ and ‘Pages’ directories are your first ports of call: upload all your materials to the Files folder (use subfolders, for media, graphics, etc., for clarity) and then edit the prefabricated overviews and create pages for any embedded media you wish to use. Next, populate the ‘Modules’ sections with whatever you have uploaded. Use text headers to structure students’ engagement with your materials.

If properly prepared, you can build a module on Canvas in a couple of hours – and you can also give your module a sense of identity and coherence that allows students to better engage with your curricular goals. I have certainly found it easier to keep trajectories of my modules in mind using Canvas, and its focus on structured and sequential learning has meant that, especially on my current final year module, I’ve noticed engaged students processing and reflecting back much more confidently the learning objectives I’ve tried to build into my course.

Can you show us three things in Canvas which have worked well for you?

1. Embedding a media-rich variety of content in module
2. Using Appointment Groups in Canvas to schedule meetings with students
3. Using Canvas Course Analytics to review student engagement
#1: Embedding a media-rich variety of content in module

#2: Using Appointment Groups in Canvas to Schedule Meetings with Students

#3: Using Canvas Course Analytics

Three Things – Dr Eva Sweeney

Dr Eva Sweeney, School of Medicine, Dentistry and Biomedical Sciences

Dr Eva Sweeney – School of Medicine,
What is your favourite Canvas feature, and why? I am constantly discovering new features that impress me, currently, I am loving how easy it is to integrate Turnitin with assignments in Canvas. It is so much simpler and intuitive than the previous method.

What would you say to colleagues who may be hesitant to use Canvas? Our students are habituated to receiving high quality digital media in their daily life, when they come to university and are greeted with Queens Online they view us in the same way we would view someone still using Windows 95. For those that say that the don’t feel like they want all these bells and whistles I would say that you don’t know what you are missing till you try it!

Can you show us three things in Canvas which have worked well for you?

1. I love the compatibility of Canvas, it supports a range of embedded tools such as Mediasite, Padlet, Google Forms, YouTube, 3d images, Twitter and other media so easily.

2. The staff-student and inter-student communication features are also very useful, for example: discussion boards, group “skype” type tools, collaborative documents/PowerPoints for student goupwork, a module chat box and a very versatile announcement tool. Feedback from students indicates that this makes them feel more connected and engaged with their instructors.

3. The support is excellent from both our in house team and the 24/7 live online help chat.

#1: Embedding Content
#2: Announcements

#3: The HELP Button