

eAssessment: Creating Online Quizzes

Blackboard
learn⁺



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Overview

You will:

- explore the use of online formative and summative quizzes
- create online quizzes using MCQs and other question types in Blackboard
- deploy an online quiz
- *view student results & test statistics*

IT Carlow lecturers' experience

I'm using them all the time now –
lot of work getting them sorted,
but it seems to be paying off!

Gina, Business

I ran a test through Blackboard this
morning for my students. It went
really well, I was delighted with it!

The students found the quizzes very
helpful for revision purposes. Some of
them did the quizzes loads of times,
improving their mark each time.

Dara, German

Use with podcasts Allison, Law

Use with screencasts Shane, Engineering

Online quizzes



Example quiz:

Dara McHugh, German

[Teaching note & quizzes](#)

Arts, Humanities and Social Sciences
www.ndlr.ie
Local Innovation Project
National Digital Learning Resources

Using online quizzes as a teaching aid for German at ab initio level

German

Institute of Technology Carlow
www.itcarlow.ie

Participant(s) Dara McHugh

Description This resource consists of a teaching note summarising my experience on how quizzes can be used both for revising and testing German grammar and situational responses, along with a selection of revision quizzes (both in PDF and Blackboard pools).

A series of quizzes were created in Blackboard and made available for students to practice prior to a summative quiz. The quizzes were automatically graded and students given feedback after each attempt. Students were able to complete each revision quiz as often as they wished. There were 10-12 questions in each quiz and 8-10 revision quizzes were uploaded at a time.

Over 90% of students attempted the revision quizzes at least once, with over one-third completing the revision quizzes more than once. Students liked the quizzes and I could track their progress.

In summary, online quizzes are a very useful teaching aid for German at ab initio level, especially for grammar revision.

Resources Teaching note, online quizzes (PDF & Blackboard)

Development Blackboard

Completion May 2012

Podcast with a quiz



Example podcast:
Allison Kenneally, Law
[Tribunals](#)

National Digital Learning Resources

LOCAL INNOVATION PROJECT

Title

Using Podcasts to Support Undergraduate Legal Education at IT Carlow

Subject

LAW


Institute of Technology Carlow
www.itcarlow.ie

Project owner(s)
Allison Kenneally, John Tully,
Ivan Sheeran, Pauline McHugh

This project aims to develop a series of podcasts to support student learning for students on the B.A.(Honours) in Law, particularly first year students. This follows previous research by Kenneally on using podcasts with law students.

The project developed a series of podcasts with related learning materials including online MCQ's to support students learning.

Resources: Podcasts & related materials
Development tool(s): Audacity
Exp. Completion: March 2011





Quiz with screencasts



Example screencast:
Shane Murray, Eng
[Fluids in Motion](#)

National Digital Learning Resources

LOCAL INNOVATION PROJECT

Title

Enhance and develop student-centered learning through the medium of screencasts

Subject

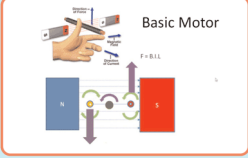
ENGINEERING

Institute of Technology Carlow
www.itcarlow.ie

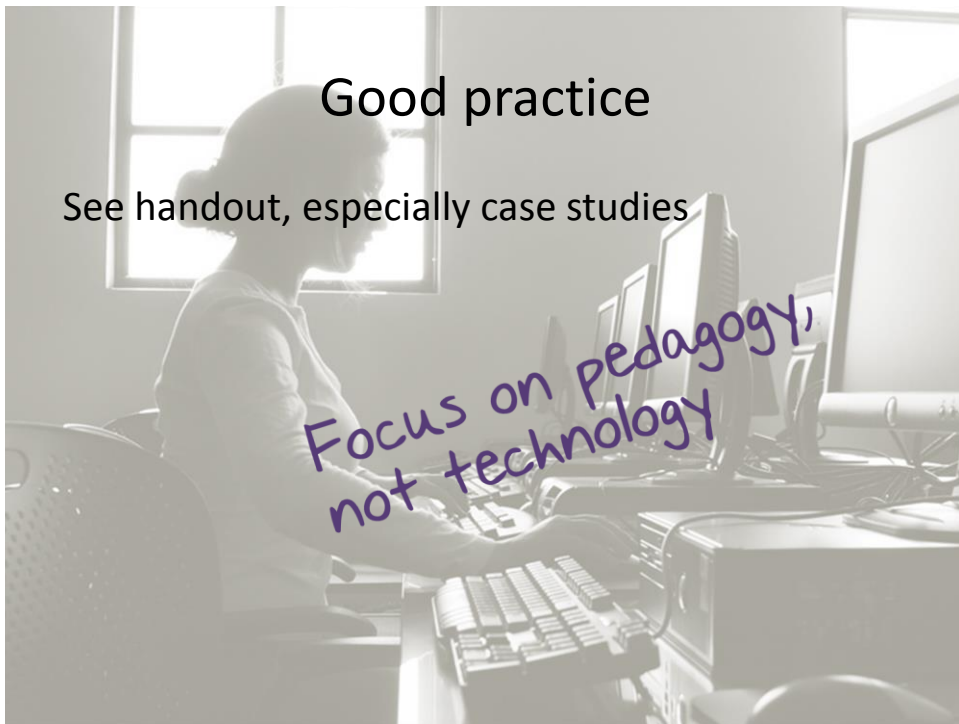
Project owner(s)
Shane Murray, Brian Hunter,
Martin O'Brien, Noel Dunne,
Roddy McNamee

The purpose of this project was to develop a more student-centered approach by providing richer learning resources and feedback to students. Multimedia screencasts engage learners and help learning by scaffolding more difficult concepts and techniques. We created a series of screencasts in a number of different areas covering key engineering concepts and techniques. These include solutions to problems that were integrated as feedback into online quizzes, short presentations reviewing difficult concepts and demonstrations of software applications

Resources: Screencasts (solutions, presentations, etc.) & related materials
Development tool(s): Screenr.com, tablet laptops
Exp. Completion: May 2011







Example: formative assessment

Class/Course: Law / first term, first year compulsory module
A new subject for most students
High failure rate & poor general results

Technology: Weekly optional online quizzes (50% take up)

Learning Gains: *Before: 25% fail, 28% 3rd class, 7% 1st class*

Quiz takers: 4% fail, 14% 3rd class, 24% 1st class

Non quiz takers: same pattern as before

Catley, P. (2005) *One lecturer's experience of blending E-Learning with traditional teaching or How to improve retention and progression by engaging students*, Oxford, BeILT [available](#)

REAP: Strathclyde Business School

Class/Course:	Principles of Marketing
Students:	500
Technology:	Online multiple choice question tests, electronic feedback form, feedback data bank
Assessment Activities:	Regular online tasks to improve student engagement, multiple opportunities for self-testing and improved tutor feedback.
Efficiencies:	Staff workload increased during test implementation but reductions anticipated in future years.
Learning Gains:	No reported gains in exam performance or essay, but 9% increase in mean class performance in summative multiple choice question tests.

"The feedback given was in depth and informative. I found that I could use it to improve on the following assignments and for other classes." Student comment

Source: <http://www.reap.ac.uk/reap/assessment/pilotsSUMarketing.html>

Do MCQs encourage surface learning?

Surface learning happens whatever the assessment method

Use MCQs to

- test knowledge acquired by rote learning
- check whether students have grasped the basics

Setting MCQs which demand more than knowledge from students is possible but difficult

Source: <http://www.ukcle.ac.uk/resources/assessment-and-feedback/mcqs>

So why use
online assessment?

For students

able to re-try & re-try ...
immediate feedback

For lecturer

immediate feedback to student
less correcting
feedback to lecturer

Randomised quiz



Possible issues

students need a dry run
(use mock test)

must ensure correct answers
are on the system! Be very
careful putting test together
what to do if the
technology glitches?

Rich selection of question types

Multiple Choice
Multiple Answer
Fill in the Blank
Matching
Calculated Formula
Hot Spot

...

Types of question in Blackboard

- **Essay Questions** allow text to be entered into a text box. This text is not automatically marked and will require manual marking.
- **Fill in the Blank Questions** require the student to type in a single word answer. This has to match the answer (and any variants) that you mark as correct.
- **Matching Questions** require a student to match one value to another. This could be matching text to text, text to pictures, pictures to sound clips and so on.
- **Multiple Answer Questions** require a student to answer a question by selecting one or more answers.
- **Multiple Choice Questions** require a student to answer a question by selecting a single answer.
- **Ordering Questions** require the student to put a number of items. This could for example be chronological or procedural.
- **True/False Questions** require the student to choose whether something is true or false.

Adapted from <http://www.southampton.ac.uk/isolutions/computing/elearn/blackboard/questiontypes.html>

Types of question in Blackboard

- **A Calculated Formula question** contains a formula, the variables of which can be set to change for each user. The variable range is created by specifying a minimum value and a maximum value for each variable. Answer sets are randomly generated.
- **Calculated Numeric questions** require the student to enter a number as an answer to a specific question. The behaviour is similar to a fill in the blank question.
- **Either / Or Questions** require the student to choose from two possible answers. A choice of answers is available: Yes / No, True / False, Agree / Disagree, and Right / Wrong.
- **File Response Questions** allow students to upload files to answer a question.
- **Fill in Multiple Blanks Questions** are like fill in the blank questions, but with more than one blank. Text is entered with variables in square brackets used to mark where blanks should be. Then the variables are matched with the answers.
- **Hot Spot Questions** require the student to click on a picture in order to answer a question.
- **Jumbled Sentence Questions** require a student to complete a sentence, choosing words using drop down lists.
- **Quiz Bowl Questions** present an answer and require the student to type in the question.
- **Short Answer Questions** allow text to be entered into a text box. This text is not automatically marked and will require manual marking.

Adapted from <http://www.southampton.ac.uk/isolutions/computing/elearn/blackboard/questiontypes.html>

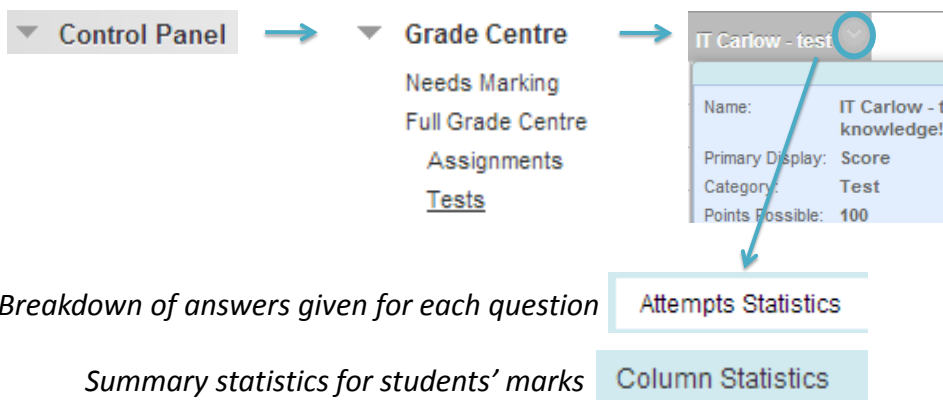
Task: Take the quiz (5 minutes)

What do you know about IT Carlow?

– quiz based upon one from Myles Kelly

*Note use of question types –
think about how you could use*

Looking at the results



Let's look at your answers!

Viewing individual attempts

Soap

Joe

07 November 2013

45.00

View Grade Details

Quick Comment

Exempt Grade

Attempt 14/05/13 47.50

Grade Details

Jump to...

User Joe Soap (soapjoe)

Column IT Carlow - test your knowledge! (Test)

Current Grade:

45.00 out of 100 points

Exempt

Grade based on Highest Score

Due: 25-Dec-2013

Calculated Grade 45.00

View Attempts

Attempts

Manual Override

Column Details

Grade History

Delete

Last Attempt

Go

Date Created	Date Submitted (or Saved)	Value	Feedback to User	Grading Notes	Actions
07-May-2013 19:50:17	07-May-2013 19:50:41 (Completed)	20.00			<div>Grade Attempt</div> <div>Clear Attempt</div> <div>Ignore Attempt</div>
07-May-2013 13:30:49	07-May-2013 13:33:43 (Completed)	45.00			<div>Grade Attempt</div> <div>Clear Attempt</div> <div>Ignore Attempt</div>

Counting the best attempt

Control Panel

Grade Centre

Needs Marking

Full Grade Centre

Assignments

Tests

IT Carlow - test

Name: IT Carlow - test your knowledge!

Primary Display: Score

Category: Test

Points Possible: 100

Edit Column Information

Score attempts using

Category

✱ Points Possible

Highest Grade

Last Graded Attempt

Highest Grade

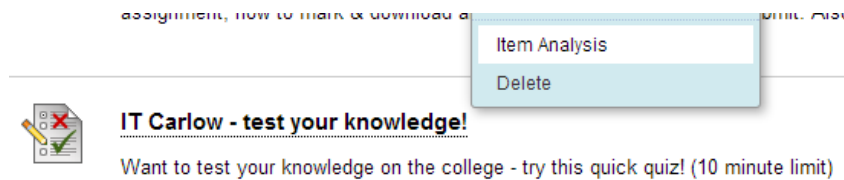
Lowest Grade

First Graded Attempt

Average of Graded Attempts

Item Analysis

... statistics on overall test performance and individual test questions to help you recognise questions that might be poor discriminators of student performance



Creating a quiz

▼ **Course Tools** → **Tests, Surveys and Pools**

Tests, Surveys and Pools

Tests

Tests are sets of questions that are marked to measure student performance. Once a test is created here, it must be deployed within a content folder before students can take the test. Test results are reviewed in the Grade Centre. Note that some question types are not graded automatically.

Surveys

Surveys are not marked. They are useful for gathering data from students that is not used to evaluate student performance. Surveys must be deployed in a content folder so that students may respond to the survey.

Pools

Pools are sets of questions that can be added to any Test or Survey. Pools are useful for storing questions and reusing them in more than one Test or Survey.

How to create an online quiz

Tests

Tests are a means of assessing student performance. [More Help](#)

Build Test	Import Test	
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Add the name, description, and instructions for a new test
Test questions are then added through the Test Canvas,
which appears after clicking Submit. Also can import
questions or create Random Blocks from Question Pools

Question Settings

1. Feedback

☐ Provide feedback for individual answers.

2. Images, Files and Web Links

☐ Add images, files and web links to individual feedback.

☐ Add images, files and web links to answers.

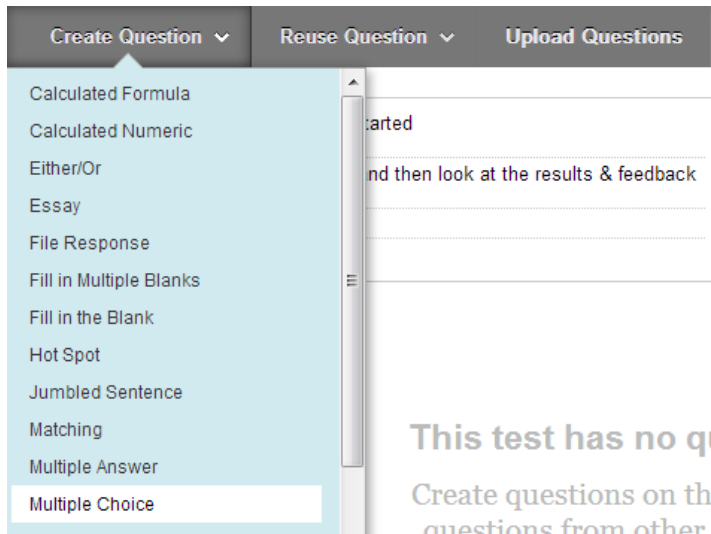
4. Scoring

- ☒ Specify default points when creating questions. Default point value
- ☒ Use the currently assigned points when finding and adding questions.
- ☐ Use default points when finding and adding questions.
- ☒ Specify partial-credit options for answers.
- ☐ Specify negative points options for answers.
- ☒ Provide option to assign questions as extra credit.

5. Display

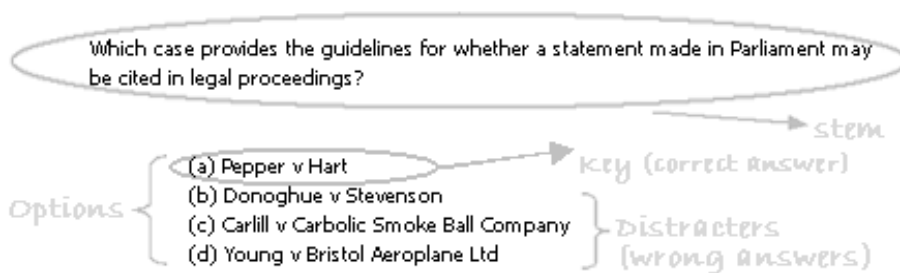
- ☒ Specify random ordering of answers.
- ☒ Specify the horizontal or vertical display of answers.
- ☒ Specify numbering options for answers.

Types of question



Online quizzes – designing MCQs

Need to design with care!



Source: <http://www.ukcle.ac.uk/resources/assessment-and-feedback/mcqs/>

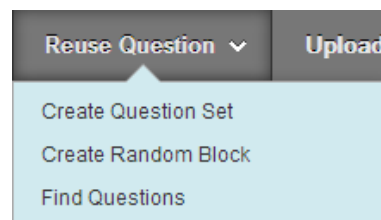
Full discussion of
issues around MCQs

Question Pools and Random Blocks

Create and import pools of questions that can be stored and used repeatedly in tests

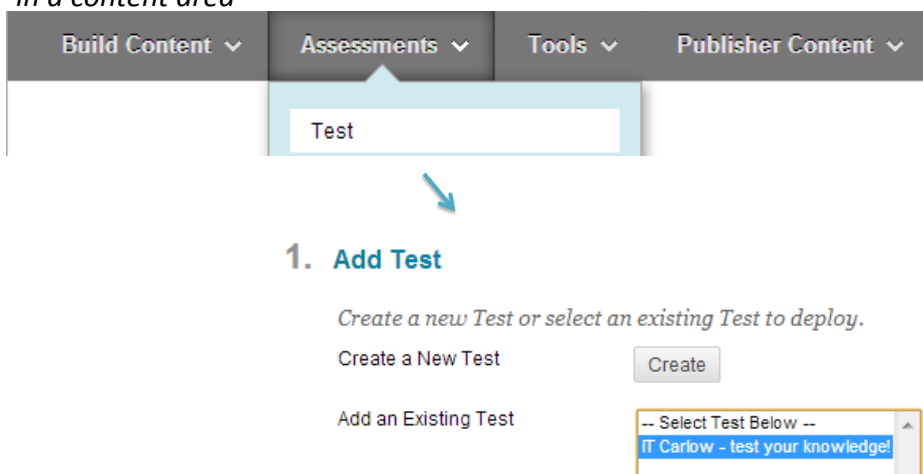
- questions created as in Test Manager
- questions from pools can be imported easily into quizzes
- in quizzes, can add a Random Block which picks at random a specified number of questions from the pool

Disadvantage of Random Block is that you don't see the attempt details



How to deploy an online quiz

in a content area



Modify Test Options

1. Test Information

✱ Name

IT Carlow - test your kno

Choose Colour of Name

 Black

Content Link Description

T **T** **T** Arial 3 (12pt) **T**      

Want to test your knowledge on the college - try this quick quiz! (10 minute limit)

Path: p

Test Description

Want to test your knowledge on the college - try this quick quiz! (10 minute limit)

2. Test Availability

Make the Link Available ☐ Yes ☒ No

Add a New Announcement for this Test ☐ Yes ☒ No

☐ Multiple Attempts
☐ Allow Unlimited Attempts
☐ Number of Attempts

☐ Force Completion
Once started, this Test must be completed in one sitting.

☐ Set Timer
Set expected completion time. Selecting this option also records completion time for this Test. Students will see the timer option before they begin the Test.

Minutes

Auto-Submit
☒ OFF ☐ ON

OFF: The user is given the option to continue after time expires.
ON: Test will be saved and submitted automatically when time expires.

☐ Display After  

Enter dates as dd/mm/yyyy. Time may be entered in any increment.

3. Test Availability Exceptions

Click **Add User or Group** to search for course users and groups to add to the exception list. Timer and Force Completion must be enabled in the previous Test Availability step to enable those settings for Exceptions. If you choose to use groups, you must make the group unavailable if you do not want students to see group members. Click **Remove all Exceptions** to delete all exceptions for the test.

Add User or Group

4. Due Date

Set the date the assessment is due. Optionally, do not allow students to take a test once the due date has passed.

Submissions are accepted after this date but are marked **Late**.








☐ Due Date  

Enter dates as dd/mm/yyyy. Time may be entered in any increment.

☐ Do not allow students to start the Test if the due date has passed.
Students will be unable to start the Test if this option is checked.

6. Show Test Results and Feedback to Students

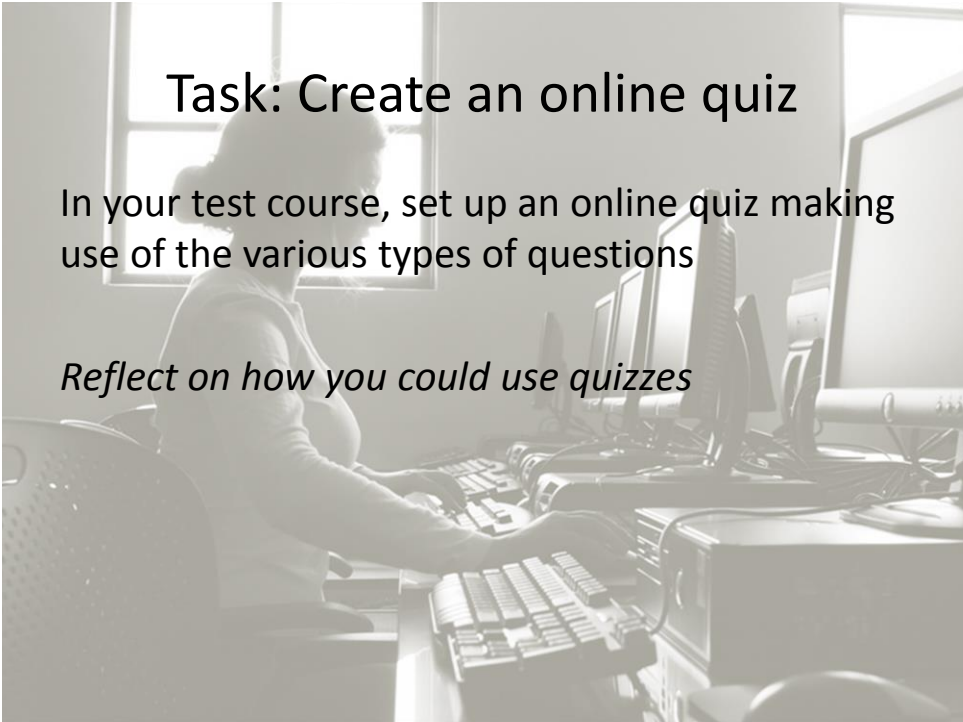
Test results and feedback are available to students after they complete a test. Set up to two rules to show results and feedback. Rules occur based on the events selected.

When 	Score 	Answers 	Feedback 	Show Incorrect Questions 
After Submission 	<input checked="" type="checkbox"/>	<input type="checkbox"/> All Answers <input type="checkbox"/> Correct <input type="checkbox"/> Submitted <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
----Choose---- 	<input type="checkbox"/>	<input type="checkbox"/> All Answers <input type="checkbox"/> Correct <input type="checkbox"/> Submitted <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Test Presentation

- ☒ All at Once
Present the entire Test on one screen.
- ☐ One at a Time
Present one question at a time.
- ☐ Prohibit Backtracking
Prevent changing the answer to a question that has already been submitted.

☐ Randomise Questions
Randomise questions for each Test attempt.



Task: Create an online quiz

In your test course, set up an online quiz making use of the various types of questions

Reflect on how you could use quizzes



New to quizzes in Blackboard 9

- Auto re-grading (after a test is live, can change questions and re-grade existing tests)
- Negative marking
- Auto-submit feature (when time elapses)
- Fill in blank questions can require case-sensitive answers
- Mobile compatible tests
- Test Availability Exceptions: select one or more groups of students and make a number of exceptions to the already established availability settings
- More flexibility for showing test results & feedback to students