The Use of Blackboard to Design and Deliver Computer-Based Summative Examinations: Challenges and Solutions

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Brief Background
My Use of Blackboard in Computer-based Examinations (1)

• BUS3008 Advanced Corporate Reporting
  – The use of Blackboard assessment tools to set up weekly assignments that consisted of a number of short questions including multiple choices, multiple answers, matching, short answers, etc...

• Main professional accountancy bodies, mainly ACCA, CIMA and ICAEW
  – changed their professional examinations from paper-based to computer-based examinations.

• ACC2023 Research Methodologies and Methods module
  – 20% of the overall module mark to a summative computer-based examinations using Blackboard.
My Use of Blackboard in Computer-based Examinations (2)

• In January 2015, I piloted this new form of the ACC2023 summative computer-based examination.

• In March 2015, the academic registry asked me to reflect on my experience in conducting the ACC2023 January computer-based examination.

• My reflection was used as an input to change the academic regulations for 2015/16 and a new section (Section 5) was added to Appendix 12.
The Academic Regulations 2015/16
The Academic Regulations 2015/16

• Appendix (12): CODE OF CONDUCT FOR ASSESSMENT/EXAMINATION CANDIDATES & GUIDANCE FOR INVIGILATORS
  – 5- Computer Based Examinations (CBE)
The Design of Computer-Based Examination in Blackboard
Under Course tools, choose Tests, Surveys and Pools
The Difference Between Tests and Pools

- **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.
  - Tests can be used to design the same set of questions for all students.

- **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.
  - Pools can be used to design a different set of questions for each student.
Build a test

**Test Canvas: ACC2023 - January Examination**

The Test Canvas allows you to add and edit questions, add question sets or random blocks, reorder questions, and review the test.

You can edit, delete or change the point values of test questions on this page. If necessary, test attempts will be regraded after you submit your test.

**Description**

This is a computer-marked examination in quantitative research methodologies and methods in accounting.

**Instructions**

- During the examination time, it will be considered as 'plagiarism' any attempt to visit any other internet website.
- This examination consists of 50 questions.
- The time allowed to take this examination is 90 minutes.
- Backtracking is allowed (i.e. Within the examination time, students will be allowed to change the answer to a question).
- The examination is password-protected. For this examination, the password will be given to students in the class.
- The examination will be saved and submitted automatically when time expires.
Create Question
Build a pool
Create Question
Once all pools are created, a test can be created from these pools using ‘Create Random Block’.
Deploying test in blackboard (1)

- Choose assessments – Test
Deploying test in blackboard (2)

• Then, you will have test options to configure the test.
  - TEST INFORMATION
  - TEST AVAILABILITY
  - TEST AVAILABILITY EXCEPTIONS
  - DUE DATE
  - SELF-ASSESSMENT OPTIONS
  - SHOW TEST RESULTS AND FEEDBACK TO STUDENTS
  - TEST PRESENTATION

• The final deployed test will look like:

ACC2023 - Mock Examination
Availability: Item is not available.
This is a mock examination. Its purpose is to be familiar with the computer-based examination for this module.
The Delivery of Computer-Based Examination in Blackboard
Tutor Preparation and Browser Lockdown Procedure

Tutor Preparations

1. Tutor to manage content so that only exam is seen by students
2. Module content menu - links hidden apart from that containing the exam

Browser Lockdown Procedure

1. Tutor activates Online Exam Account
   - Username: [Redacted]
   - Password: [Redacted]
2. Recommend Tutor login to PCs prior exam and student access to Learning Edge login page
3. Tutor opens IE Lockdown Browser prior to student access to Learning Edge
   - desktop link
Learning Edge – Student Login Procedure

Student verification

Student login Learning Edge – using their usual account details

Student Access to exam via Home Tab (ACC2023 Module Area)
Begin the test
CBE: Challenges and Solutions
CBE: Challenge/solution 1: Questions are password protected
CBE: Challenge/solution 2: Only students present in the room can view the examination.
CBE: Challenge/solution 3: Only students present in the room can view the examination at the appropriate time.
CBE: Challenge/solution 4: Students cannot navigate to unauthorised materials via the web

ONLINE EXAM

Tutor Preparations

- Tutor to manage content so that only exam is seen by students
- Module content menu - links hidden apart from that containing the exam

Browser Lockdown Procedure

- Tutor activates Online Exam Account
  - Username: [blank]
  - Password: [blank]

- Recommend Tutor login to PCs prior to exam and student access to Learning Edge login page

- Tutor opens IE Lockdown Browser prior to student access to Learning Edge
  - desktop link
CBE: Challenge/solution 5: Randomization is in place where practical to reduce the potential for cheating.
CBE: Challenge/solution 6: Students with extra time requirements (approved modifications)
CBE: Challenge/solution 7: Student seating plan

- Leaving a chair between each two students in the computer labs.
CBE: Challenge/solution 8: Students are made aware in advance of any expectations of them

• A Mock examination is conducted to familiarise students with the online examination.

• Examination instructions are given to students before the start of the online examination (onscreen instructions and paper-based instructions)
CBE: Challenge/solution 8 (Contd.): onscreen examination instructions

INSTRUCTIONS

Description
This is a computer-marked examination in quantitative research methodologies and methods in accounting and financial management (1.5 hours - Semester 1 - LOs 1, 2, 3). It worths 20% of the overall mark.

Instructions
- During the examination time, it will be considered as 'plagiarism' any attempt to visit any other internet websites or to use any materials on Blackboard or those stored on students' 'M' drives.
- This examination consists of 50 questions.
- The time allowed to take this examination is 90 minutes.
- Backtracking is allowed (i.e., within the examination time, students will be allowed to change the answer to a question that has already been submitted.)
- The examination is password-protected. For this examination, the password will be given to students in the examination venue.
- The examination will be saved and submitted automatically when time expires.

Timed Test
This test has a time limit of 1 hour and 30 minutes.

Timer Setting
This test will save and be submitted automatically when the time expires.

Force Completion
Once started, this test must be completed in one sitting. Do not leave the test before clicking Save and Submit.

Due Date
This Test is due on 13 January 2016 16:10:00 o'clock GMT. Test cannot be started past this date.

Click Begin to start ACC2023 - January Examination. Click Cancel to go back. You will be previewing this assessment and your results will not be recorded.

Click Begin to start. Click Cancel to quit.
CBE: Challenge/solution 9: Contingency arrangements

- **Challenge**: Contingency arrangements exist to manage any risks associated with a CBE such as software or power failure.

- **Solution**: A hard copy of examination paper and an answer booklet are prepared for each student as a contingency plan.
CBE: Challenge/solution 10: the release of examination results (1)
CBE: Challenge/solution 10: the release of examination results (2)
Thanks for your attention

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