

Online Assessment (CAA) Pedagogical guidelines: Best Practice for recommended use of software for formative and summative assessment

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Computer-Assisted Assessment at the University of Bradford:

Setting the Context



Computer-assisted assessment (CAA), also known as Computer-aided assessment, e-assessment or online assessment has been carried out for several years at the University of Bradford, at first by individual lecturers using a range of software supported on an ad hoc basis. With time, growing numbers and the adoption of Questionmark Perception as the standard platform for CAA as part of the University's e-strategy in 2006, we now find ourselves with a more robust system for formative and summative assessment.

Since 2007, the Pathfinder project has developed systems for CAA, established rules and regulations and provided training materials and sessions as well as general briefing sessions and generally promoting online assessment across the institution.

Developments and ongoing projects at the University are now underway along with initiatives to move from paper based MCQs to online delivery and there is an anticipated significant increase in use. This goes hand in hand with increased use of e-learning (eg Blackboard, Pebblepad, CourseGenie, TurnItInUK) and widely reported student expectations that technology will be used across the teaching, learning and assessment.

Drivers: reasons for moving to online assessments

- The National Student Survey indicates significant levels of student dissatisfaction with traditional paper-based assessment methods and feedback mechanisms exist across the HE sector
- HEFCE Strategy for e-Learning has as objectives for pedagogy, curriculum design and development: “Encourage the use of technology to enable electronic assessment [and] produce and disseminate models of good e-learning practice including assessment.” (HEFCE, 2005)
- University of Bradford E-strategy (2004-9) supports the use of e-assessment, alongside the Learning Teaching Assessment strategy



- CAA has great potential to:
 - reduce your assessment load
 - increase the quantity and quality of feedback for your students and you

Policies and procedures

The Academic Policy Committee has now passed a “policies and procedures” document which sets down the guidelines for CAA at the institution. This now specifies the steps that must be followed if using CAA in your courses. It is important to note that these regulations now mean that online exams are covered by regulations, just as paper-based exams are.

This policy document has been produced after consultation with all the necessary stakeholder groups and is based on similar documents developed over the years at other UK HE institutions.

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Computer Assisted Assessment
Policies and Procedures – Draft 8

1. Context:

- 1.1. There has been a steady increase in the use of computers as an alternative mechanism used to enable students to sit University formal examinations. The capacity of IT systems to deliver an efficient and effective formal examination process relies on the support of co-ordinated academic, technical and administrative capabilities.
- 1.2. To ensure that an integrated approach in the development and delivery of Computer Assisted Assessment (CAA) is created it is important to establish a University policy and regulations which clearly state the procedures to be followed by academic departments and central services when planning to introduce CAA into the curriculum.
- 1.3. The Working Group on Electronic and Distance Learning considered previous draft versions of this policy paper during the 2004/5 and 2005/6 academic years. Further revisions have been incorporated into this current version based on feedback from trials undertaken with students taking examinations in January 2005, a pilot study conducted through the Exams Office on scheduling and administering CAA exams and information outlined in the University's Good Practice Guide on Assessment and Feedback.

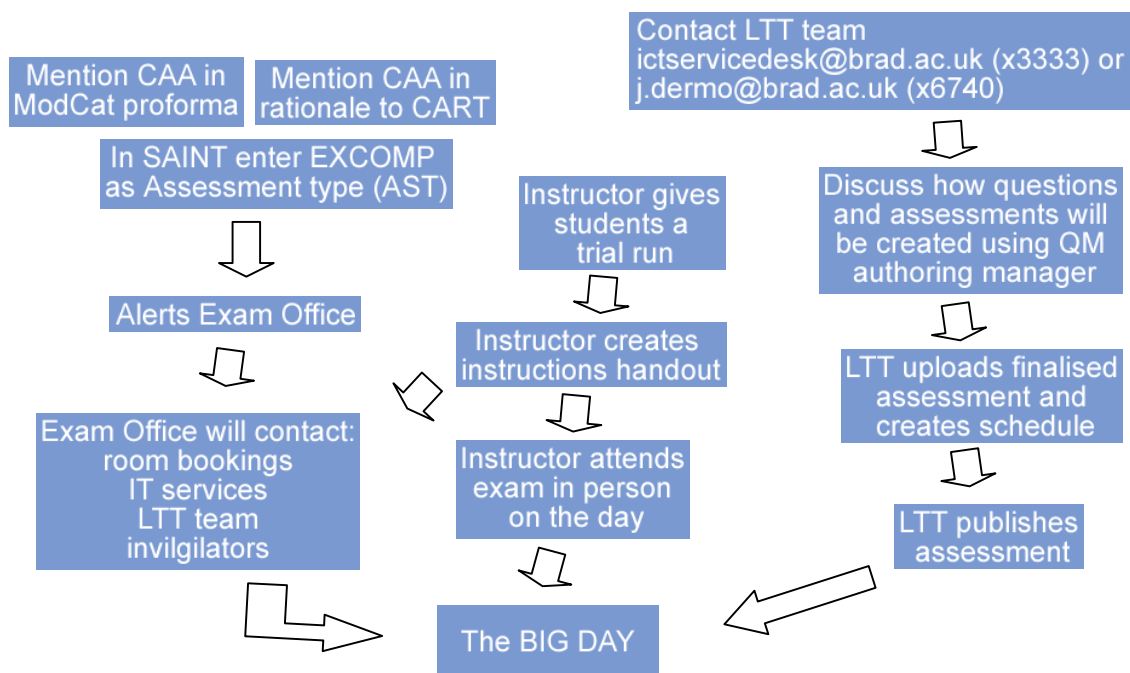
2. CAA Policy:

- 2.1. The scope of the CAA policy includes all formal University examinations that use IT which are administered centrally by the Exams Office.

Issues to Consider and Steps to follow

When considering using CAA in your course, there are various issues to consider and steps to follow. Not least there is the test itself, how much support you will require from the LTT in creating, scheduling, delivering and reporting on the assessment, there are also exam issues which will involve the exams office, room bookings, setting up PCs in cluster rooms, which will involve IT services. There are also QA issues that will first need to be addressed at CART level and administrative steps at department and university level.

The following diagram illustrates the steps to follow in planning your assessment: the left side shows admin duties, the middle column shows the instructor's roles, and the right shows the involvement of LTT. If you require clarification of this, please contact the learning technology team as below.



Best Practice for Computer Assisted Assessment

Course Development and approval:

- Don't forget, normal University QA processes apply for any changes to an existing module, including changing from a paper-based exam to CAA.
- Any assessment must be designed to test the learning outcomes of the module as specified in the Module Catalogue
- It must be made clear in the ModCat pro forma or in the rationale to the Course Approval and Review Team (CART) that CAA is being used to assess student learning.
- Check the "Code of Practice on Collaborative Provision and Flexible and Distributed Learning (including e-learning)" and the University of Bradford's "Guidelines for the Development, Approval and Review of Distance Learning programmes"
- Think about the contingencies for failure in electronic systems.
- Make sure the relevant administrator accurately records in SAINT via the 'AST' Code EXCOMP in order for the Exams Office to schedule the CAA exams within the University Exam timetable and to enable normal University examination processes to be effectively managed.

Assessment Design:

- All summative CAA should be designed and delivered through the Question Mark Perception software (QMP) unless other software is specifically requested by the academic department to the Learning Technologist based in Learner Support Services.
- For formative assessment, other technologies are at your disposal, for example using the Blackboard test tool.
- To help avoid cheating, questions (and question options when appropriate) should be randomized. This reduces the likelihood that students will be delivered assessments with questions in the same order.
- Advanced support on assessment design (formative and summative) can be obtained from the Learning Technologist based in the Learner Support Services and practical support on IT requirements can be obtained from IT

Services (Customer Services and Technical Services).

- It is important that, during the design stage of CAA development, academic staff liaise with staff in Learner Support Services to ensure that all additional arrangements required to support the CAA delivery are identified from the outset.
- For CAA, the examination must be sent to Learner Support Services electronically and at least seven days prior to the date of delivery. If the examination is in Questionmark Perception, this should take the form of a Qpack file or an assessment created in the shared repository.
- As a precautionary measure, the department delivering the assessment may also consider submitting a paper version of the assessment to the Exams Office, by no later than week 12 of the semester, in case of systems failure.

Preparing students for CAA:

- Test the published assessment prior to delivery to students.
- A practice test should be made available to students prior to the exam date with questions in the same format as those on the examination.
- Examination instructions (see example) should be made available to students at the start of the examination. It would be helpful if a copy of the instructions to candidates could be submitted to the Exams Office by no later than week 12 of the semester. The Exams Office will arrange to provide all the appropriate examination material to invigilators for information and in support of the CAA exam.

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SAMPLE SCHOOL
SAMPLE DEPARTMENT

SAMPLE MODULE
AB0123M

Date: Wednesday, 17 January 2007 Time: 09:15-10:45 and 13:00-14:30 hours

INSTRUCTIONS TO CANDIDATES

This is a multiple-choice, CLOSED BOOK, online examination. Simple calculators are permitted, but those that incorporate communication or text storage facilities are not.

Please read the following instructions carefully before starting the examination.

There are 75 questions in total. These represent a randomised selection of 25 each mixed audio and visual questions and 25 web-related visual material.

1. Open Internet Explorer and logon to the Blackboard module called "Exam".
2. Click on the Examination link
3. Logon to Question Mark Perception with your normal username/password.
4. A new scrollable window will open containing your selection of 75 questions.
5. At this stage you should only interact with the new window.

Do not attempt to do anything further with your original browser window. Do not attempt text entry, use only the mouse left button. You must interact with the Question Mark window on a regular basis to prevent a system time-out, scrolling will suffice.

6. You should attempt all seventy-five (75) questions.
7. There are no penalties for wrong answers.
8. Each question has only ONE correct answer.
9. All questions carry a mark of one.
10. If you get stuck on a question do not spend too long on it – carry on with the next question and return to it later.
11. Rough work or calculations may be entered on the reverse of this instruction sheet, but your final selection of the answer must be entered online.
12. On completing the answers to your satisfaction, click the Submit button at the bottom of the question window. **You get one go at this: make sure you are as sure as you can be about your answers before clicking.**
13. Question Mark will refresh the window with the questions and replies that you

Marking Policies:

- CAAs are subject to the same regulations as traditional assessments. The regulations titled 'Administrative regulations relating to assessment' are published at http://www.brad.ac.uk/admin/acsec/QA_Hbk/QAH5_11.html on the ASSU website.
- Assessments made up of objectively marked question formats such as Multiple Choice Questionnaires are only subject to an accuracy check and not to second marking as detailed in sections 2.6, 2.8 and 2.10 of these regulations.
- Anonymous marking should still be attempted except in situations where it cannot be realistically expected and for which a waiver from the University's policy on anonymous marking has been sought, where appropriate.

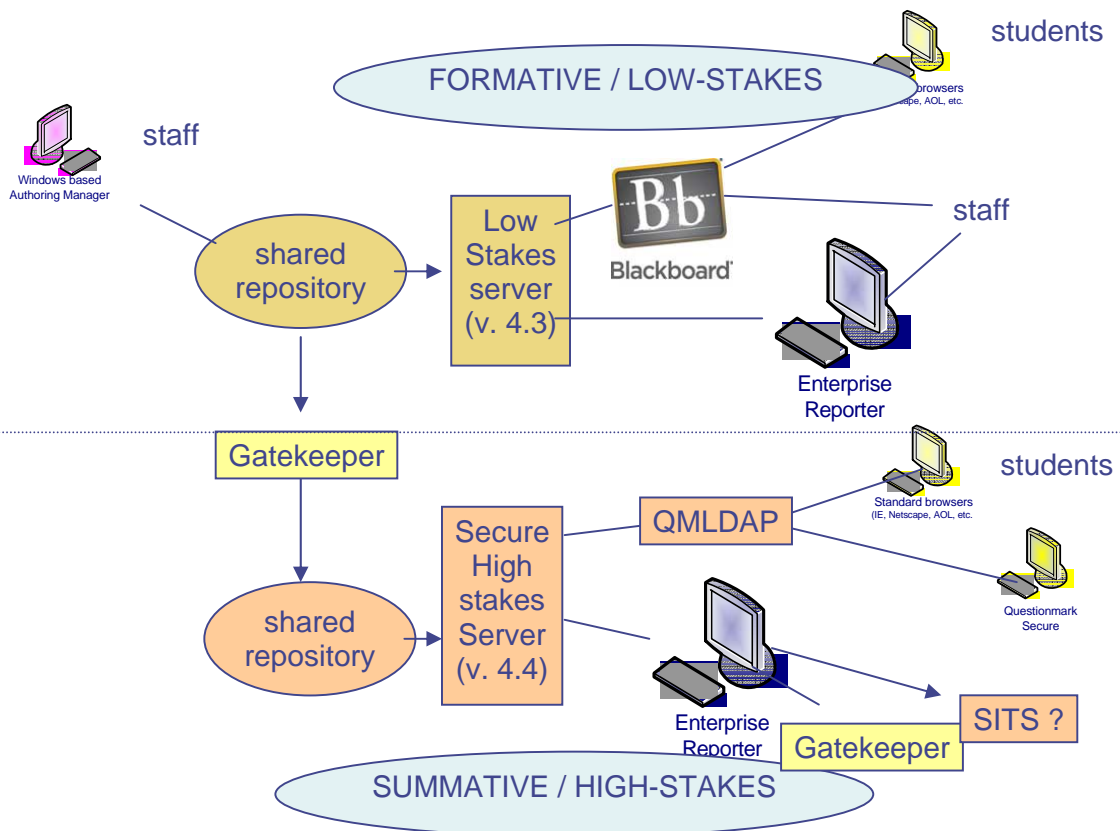
Disability and Accessibility Support:

- All policies and procedures that govern traditional assessments also apply to CAA.
- Students requiring extra time should be scheduled in a separate room. If possible, this should be located near to the main room.

Health and Safety:

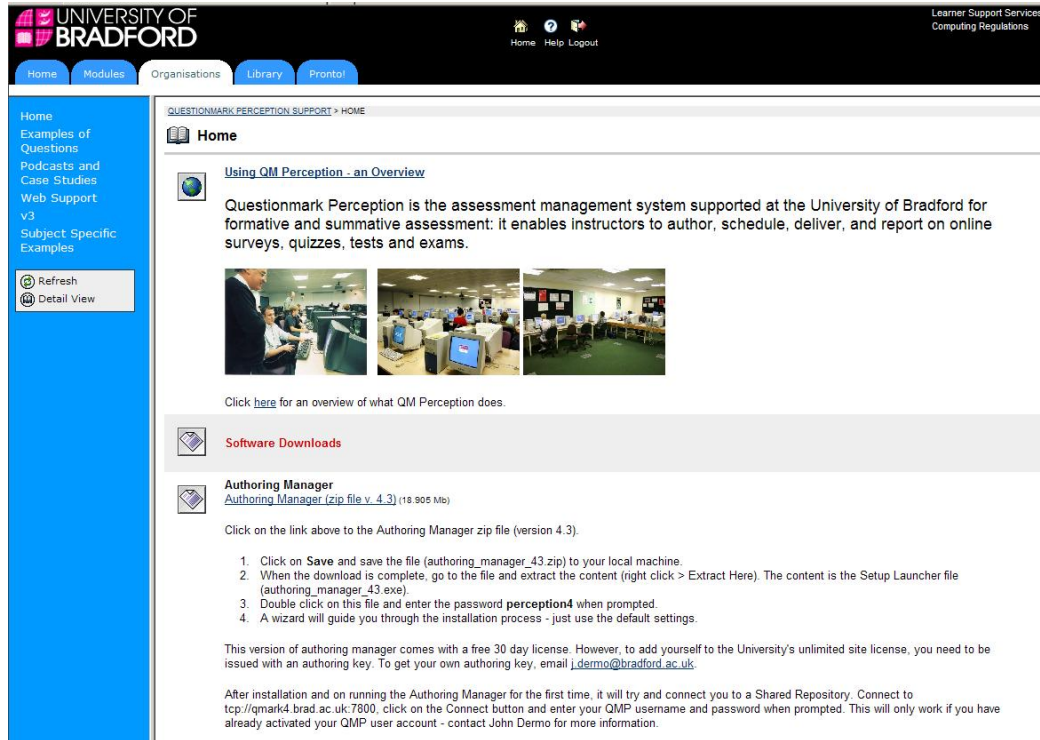
- PCs, chairs and the general assessment environment must conform to standard safe environmental regulations and guidelines for Display Screen Equipment (DSE). Students should be advised to take short breaks at their chairs to relax their muscles and eyes during the CAA and check their positioning regularly in terms of posture and environment.
- Students should be informed about the Health and Safety Executive (HSE) guidance and health and safety regulations on the use of Display Screen Equipment (DSE) regulations as part of the preparation process.

Computer Assisted Assessment: The Process



Further Information

See the Blackboard Questionmark Perception Blackboard Support Organisation for more information, support and documentation about online assessment



The screenshot shows the University of Bradford website interface. At the top, there is a navigation bar with the university logo and name, and links for Home, Help, and Logout. Below this is a secondary navigation bar with links for Home, Modules, Organisations, Library, and Printout. The main content area is titled "QUESTIONMARK PERCEPTION SUPPORT > HOME" and features a "Home" section with a globe icon. The text describes Questionmark Perception as an assessment management system. Below the text are three small images showing people in a computer lab. A "Software Downloads" section follows, featuring a link to "Authoring Manager" (zip file v. 4.3) with a file icon. Below this link is a list of four numbered steps for installation and a note about the 30-day license and how to obtain an authoring key. At the bottom, there is a note about connecting to a Shared Repository.

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Home Help Logout

Home Modules Organisations Library Printout

QUESTIONMARK PERCEPTION SUPPORT > HOME

Home

Examples of Questions

Podcasts and Case Studies

Web Support v3

Subject Specific Examples

Refresh


Detail View

QUESTIONMARK PERCEPTION SUPPORT > HOME

Home

[Using QM Perception - an Overview](#)

Questionmark Perception is the assessment management system supported at the University of Bradford for formative and summative assessment: it enables instructors to author, schedule, deliver, and report on online surveys, quizzes, tests and exams.



Click [here](#) for an overview of what QM Perception does.

[Software Downloads](#)

[Authoring Manager](#)
[Authoring Manager \(zip file v. 4.3\)](#) (18.905 Mb)

Click on the link above to the Authoring Manager zip file (version 4.3).

1. Click on **Save** and save the file (authoring_manager_43.zip) to your local machine.
2. When the download is complete, go to the file and extract the content (right click > Extract Here). The content is the Setup Launcher file (authoring_manager_43.exe).
3. Double click on this file and enter the password **perception4** when prompted.
4. A wizard will guide you through the installation process - just use the default settings.

This version of authoring manager comes with a free 30 day license. However, to add yourself to the University's unlimited site license, you need to be issued with an authoring key. To get your own authoring key, email j.demo@bradford.ac.uk.

After installation and on running the Authoring Manager for the first time, it will try and connect you to a Shared Repository. Connect to [tcp://qmark4.brad.ac.uk:7800](http://qmark4.brad.ac.uk:7800), click on the Connect button and enter your QMP username and password when prompted. This will only work if you have already activated your QMP user account - contact John Demo for more information.

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