

# Questionmark Perception™ (QMP): A tool for authoring, delivering and reporting on web-based assessments and surveys linked from Blackboard or Moodle

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## Aims

This seminar is intended to provide participants with opportunities to:

1. Discuss the impact of formative assessments on learning.
2. Discuss the pros and cons of online formative assessments.
3. Compare and contrast QMP with other tools for creating online assessments.
4. Discuss their own plans for formative assessments, and ask questions about QMP's capacity to meet their needs.

## Background

The QMP assessment management system enables educators to author, schedule, deliver, and report on surveys, formative quizzes and summative examinations (<http://www.questionmark.co/uk/perception/>).

QMP is being piloted for inclusion in the TELT platform during S1 2011 as a planned integration with both the Blackboard and Moodle Learning Management Systems (LMS). Assessments and surveys can also be formatted for delivery to mobile devices (e.g. iPhone, iPad).

QMP has two components, the Microsoft Windows authoring software called Authoring Manager (runs on Windows XP and above, no Macintosh version available), and the server components including the browser-based Enterprise Reporter.

QMP offers 22 different question types, with wizards to create each question type, as well as comprehensive reporting and analytics beyond what is currently offered via LMSs such as Blackboard and Moodle.

### ***Authoring with Perception***

Wizards are useful for creating drag and drop questions with multiple hotspots, extended matching (selection and matrix questions), true/false, multiple choice, multiple response, text match and essay questions. ***A major advantage of authoring questions with QMP is the ability to group questions into topics in a relational question database.*** This confers the capacity to compile individualised tests by randomly selecting questions from a variety of topics, or to include specific questions in a test from one or many

topics. Tests and surveys can also be made adaptive, i.e. the number and sequence of questions can be varied depending on user input.

Questions authored in QMP can be used in multiple contexts (and converted into XML for future Web developments and cross-institutional collaborations). QMP has a powerful built-in Web-based reporting facility, and has significant advantages over authoring questions in other environments. For example, authoring quizzes in LMSs or their add-ons, (e.g. Respondus) which have a limited range of question types, as well as constrained delivery and reporting options .

### ***Automated Feedback for Formative Assessments***

Upon submission of their responses, each student can be provided immediately with automated, individualised feedback on their answers. Furthermore, a summary can be provided of scores in each of the topic areas assessed, so that students can determine areas of strength or weakness. Students can repeat each formative assessment on multiple occasions (if desired) until mastery is attained. Such assessments have been utilised in the Medicine program for more than six years, with evidence of learning benefits for students (Velan GM, Jones P, McNeil HP, Kumar RK. Integrated online formative assessments in the biomedical sciences for medical students: benefits for learning. *BMC Med Ed* 2008; 8:52. <http://www.biomedcentral.com/1472-6920/8/52>).

### ***Use in Summative Assessments***

Medicine have utilised QMP for summative end of program examinations, delivered simultaneously at multiple sites. High-stakes assessments can be delivered securely via an LMS (with each student's grades automatically returned to the LMS) or via QM Secure Browser, which prevents students from accessing computer resources outside the assessment.

### ***Reporting on Student Responses***

All student responses are stored in a database on the Web server. Customisable reports can be generated regarding the performance of an individual student or groups of students, as well as reports regarding the difficulty of particular questions or topics. This capacity allows detailed feedback to be provided to academics regarding the conceptual difficulties that students have with particular areas of a course.

## ***QMP/LMS Integration***

QMP has developed connectors for both Blackboard and Moodle LMSs. QMP supports AICC and IMS Question and Test Interoperability (QTI) standards. Questions can be exported as QTI XML or SCORM objects for re-use in other platforms.

## ***More Information***

Links to “getting started” guides and animations on QMP are available from the UNSW QMP Wiki at <http://telt.unsw.wikispaces.net/QMP>.