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Introduction

Forensic Medicine is the application of medical knowledge for the purposes of law. It therefore encompasses extensive & complex medical knowledge/training in order to fully grasp the subject. The UCLan undergraduate degree in Forensic Sciences gives an all-round experience of the various forensic disciplines including Forensic Medicine which is taught at level 3. It was important to help the students develop concepts as well make them familiar with new terminology. If developed appropriately, multiple choice questions (MCQs) are a good learning & teaching tool. Since there was no such tool available in Forensic Medicine, a bank of multiple choice questions was developed making full use of different resources.

Rationale

Students like to assess their knowledge and also to have formative feedback. The students like to assess themselves in a way that is easy, simple and available online. It was desirable to develop effective & engaging MCQs using an appropriate software for this purpose.



QuestionMark® software was identified as a viable option for this project as it allows quick authoring of MCQs, development of assessment drawing upon the repository of questions, scheduling & delivery of assessments. The unique feature of this software is that it allows evaluation of each question and monitor the different responses. MCQs were developed and embedded into the software to generate student assessments.

Advantages of Using QuestionMark®

- Access to questions on a particular topic on as and when required basis.
- Assessment & instant feedback. Students answering questions incorrectly can be provided with the right responses, complete with rationale, on a separate on-screen palette
- On completion of the test, scores can be generated and areas showing strengths and weaknesses shown. Students are also provided with comparative information on the performance of peers taking similar tests.

Student Survey

Assessments on various topics were developed using QuestionMark®. 119 Students were asked to use the software over 14 weeks semester. Students were asked to work in groups. A questionnaire was designed in order to assess student experience. The same questionnaire is being used to continually assess the tool for the second year.

QuestionMark® Software

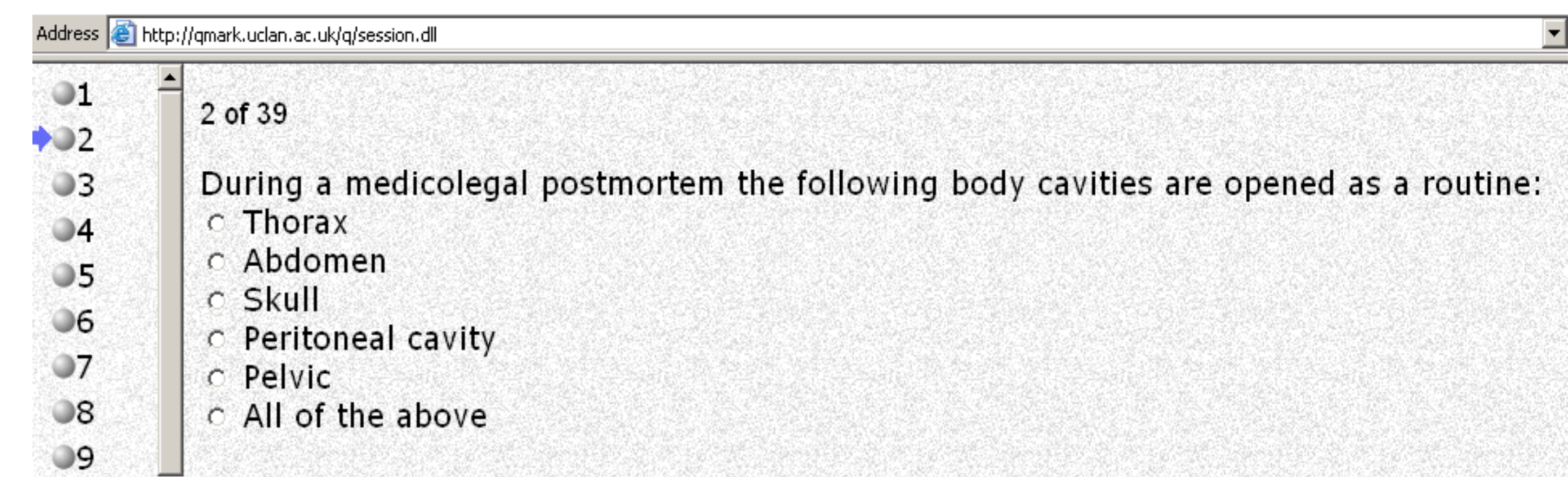


Figure 1. Figure showing a typical MCQ in QuestionMark® software as it appears to the student

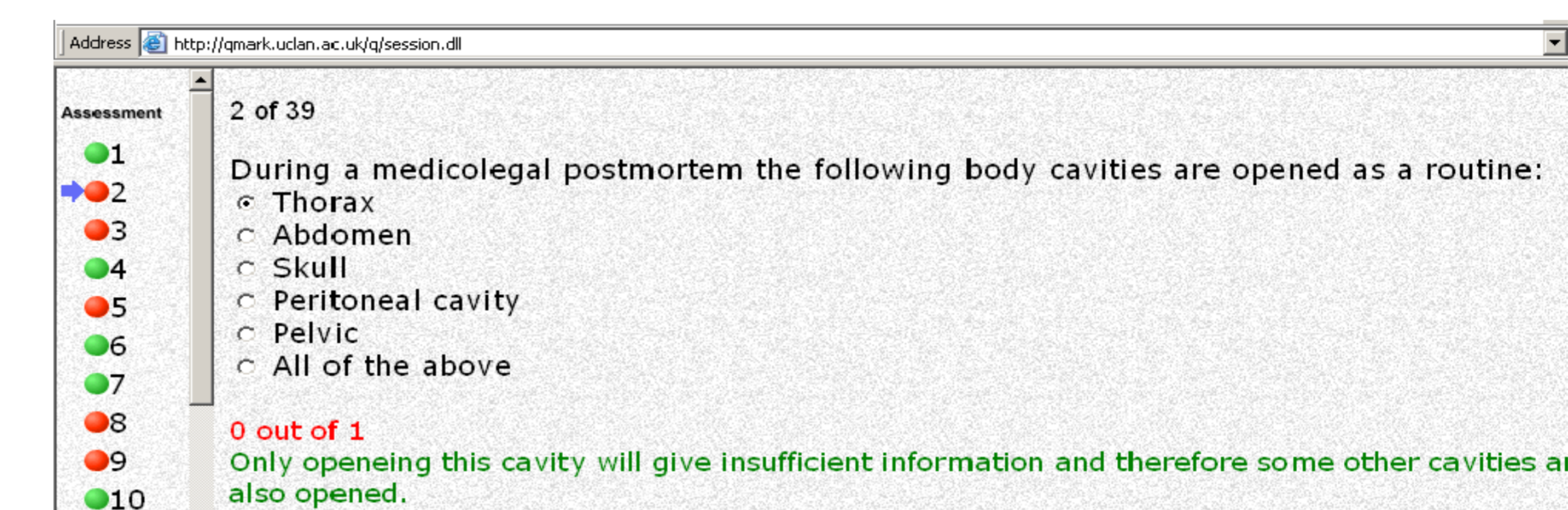


Figure 2. Figure showing a typical result & feedback in QuestionMark® software as it appears to the student

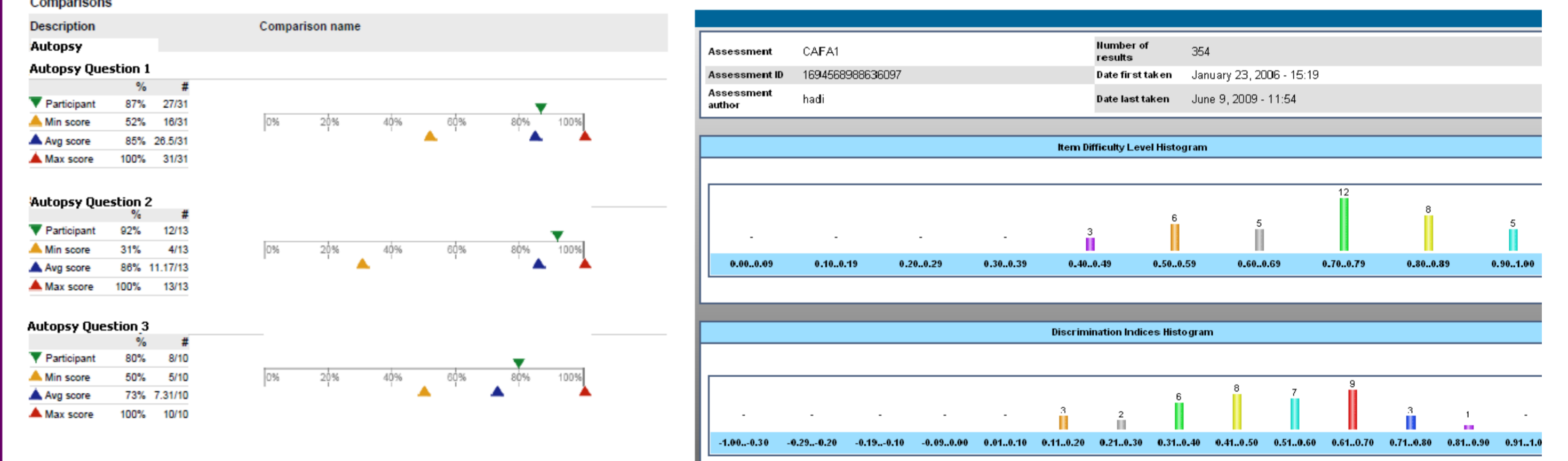
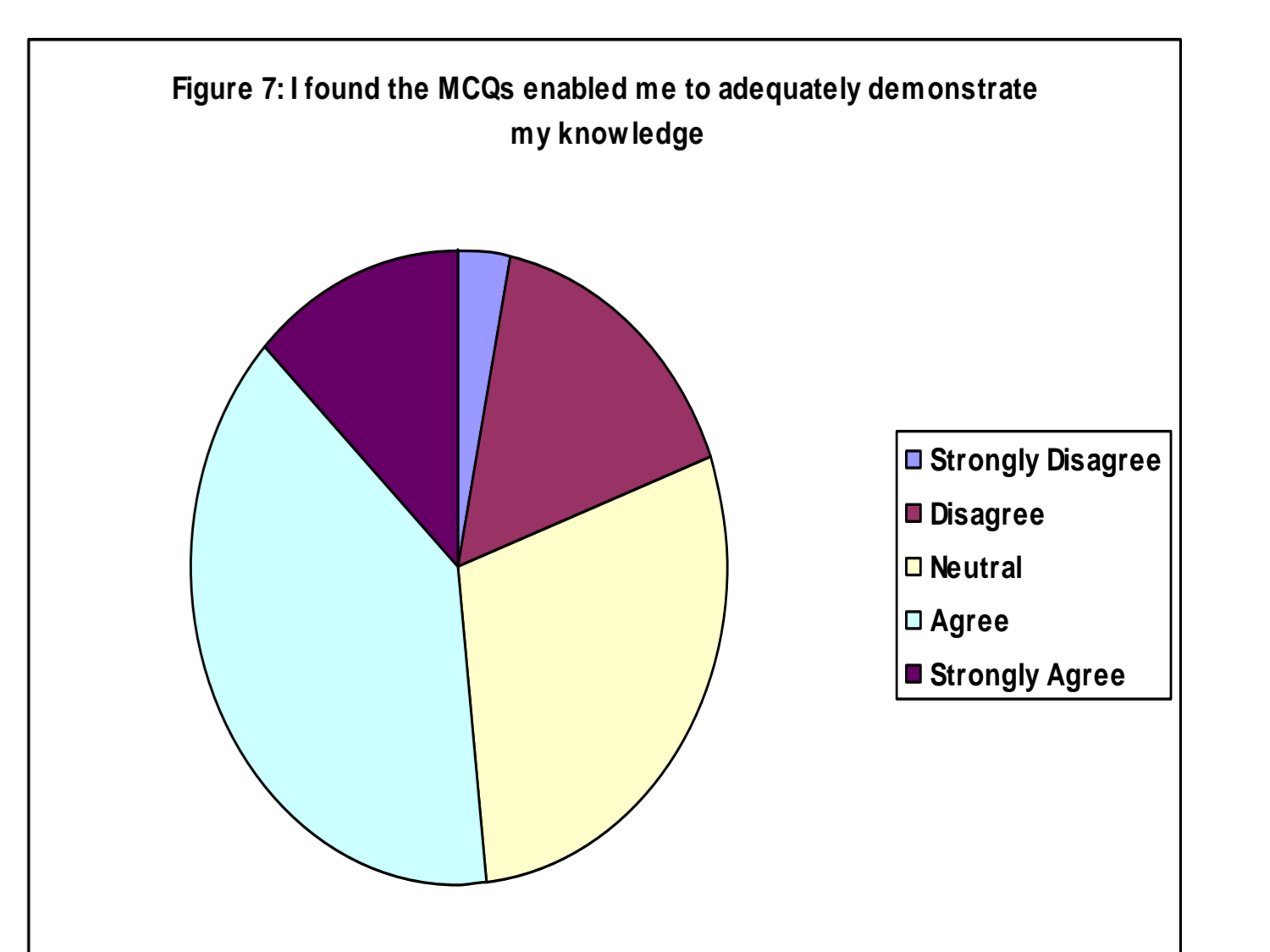
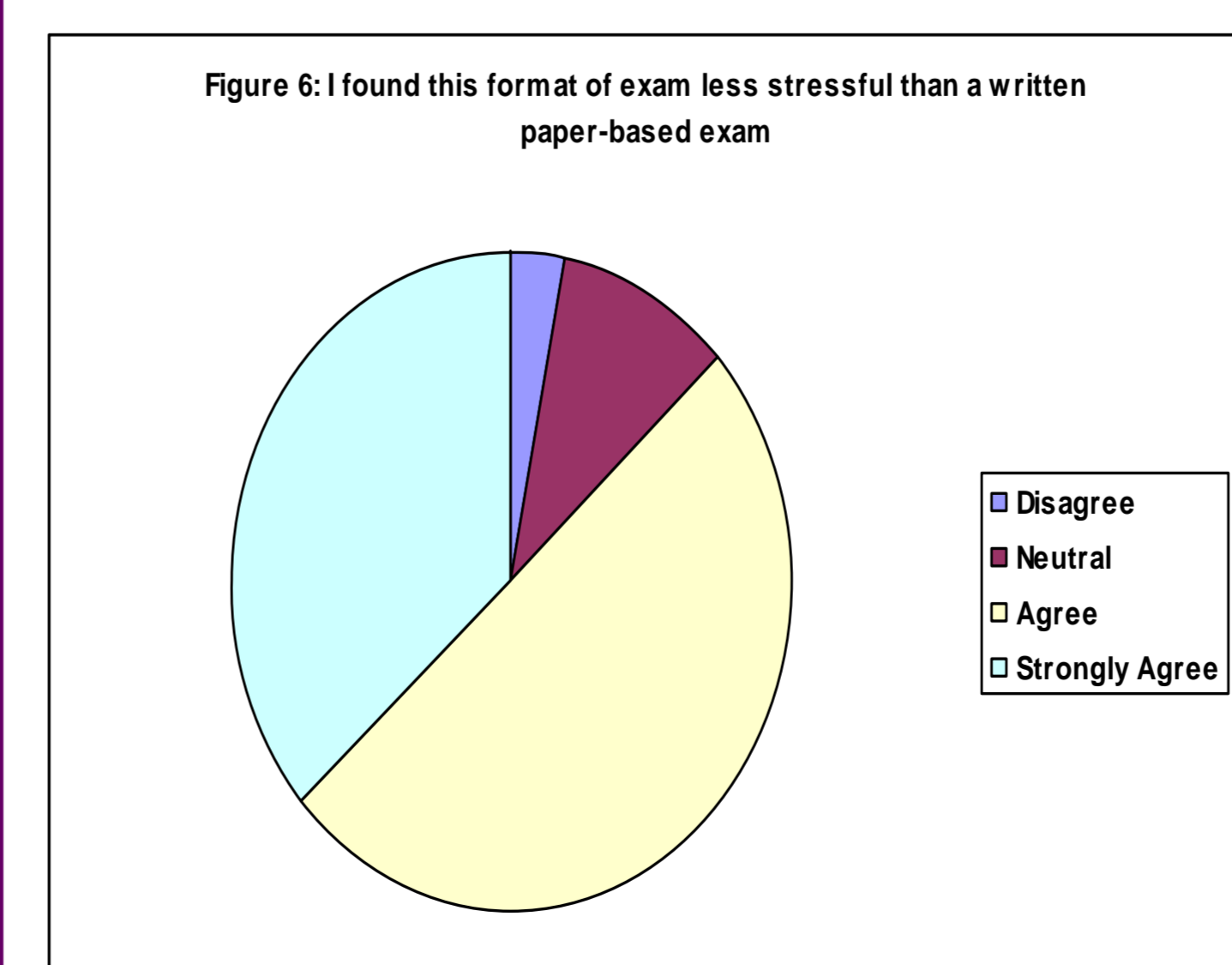
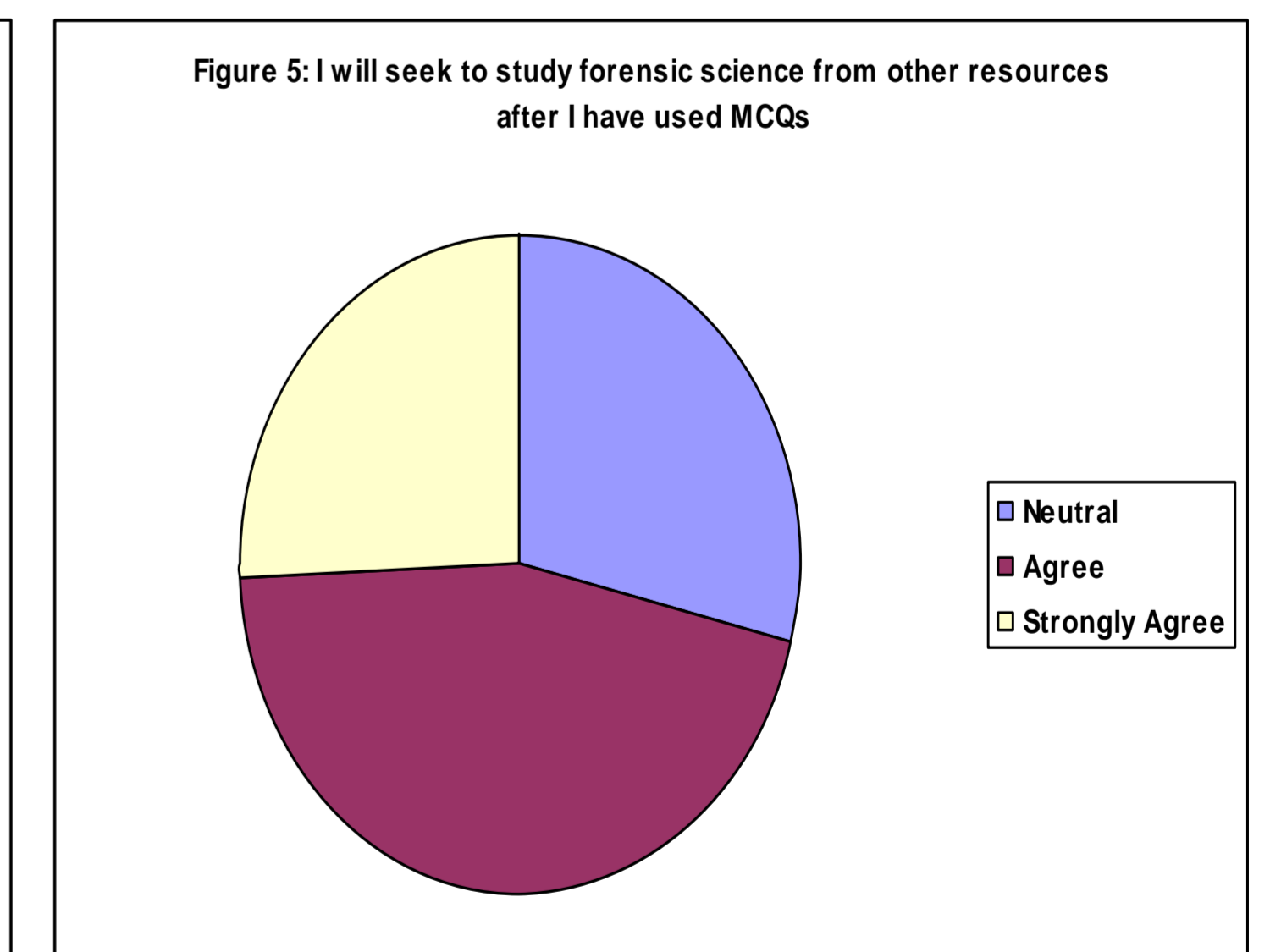
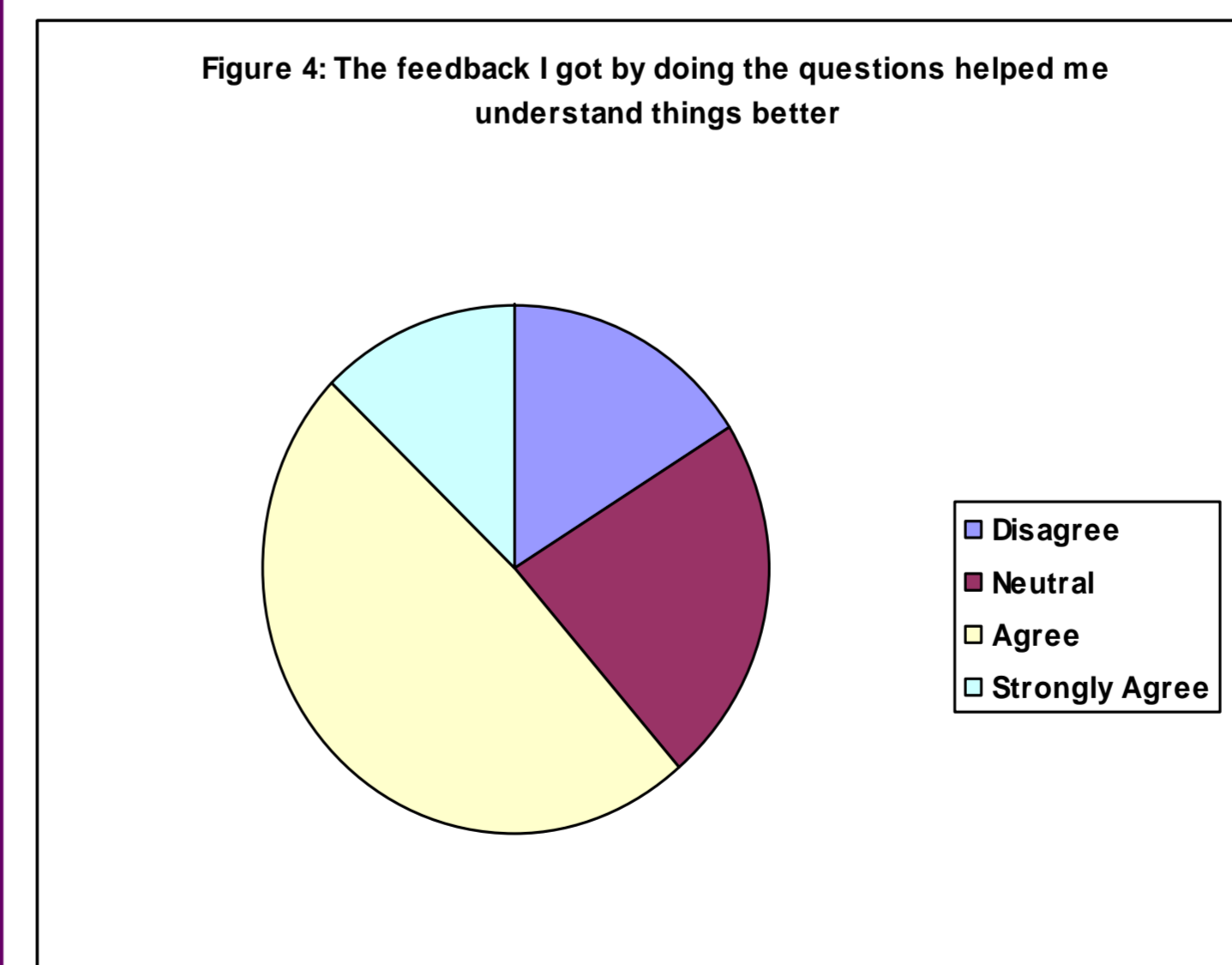


Figure 3. Coaching & item analysis report generated by QuestionMark® software.

Student Survey Results

MCQs embedded in an online, accessible tool like QuestionMark® engaged students better as a formative assessment tool than other types of assessments and regular use enhanced their concepts. An online tool like this was easier to use also it was accessible. Majority of students thought that the MCQs delivered through QuestionMark® gave them satisfactory feedback and it was less stressful.



Summary

MCQs in Forensic Medicine when used with Questionmark® enhanced the learning experience of the students.