

## Criterion E – Evaluation

### Achievement of success criteria

- To be able to test the user on key definitions for biology A level with individual questions.

This criterion was achieved through the 'quiz' class of the program, as shown through the quiz class and algorithm. This was clearly tested in criterion D (tests 2, 3, 4) and referenced on page 4 of the development documentation.

- To be able to provide a score at the end of each quiz for the user, correct incorrect answers and vary the length of each quiz.

This criterion was achieved through the implementation of the 'checkAnswer' method. This again is shown through tests 4, 5, 6 and 7 and page 5 of the development documentation. This criterion was further achieved through the introduction of the persistent storage of scores (tests 8 and 9), which we decided to include so that the client could gauge her progress, using for the writing and reading of the scores to a text file.

- To be able to randomly generate questions and prevent repeated questions, so that each quiz is unique and helpful.

The achievement of this can be seen in test 2, and again on page 4 of the documentation.

- To be able to hold revision information for a pre-decided area of the A level biology course.

This information was held in the database section of the program, as explained in the data structures section of the development (page 7). The printing of this was achieved, as shown through test 1.

Test Number	Description	Timing In film when completed
1	Printing database	0:30 – 0:52
2	Create random and non-repeated questions	1:09 – 3:06
3	Recognise correct answer	1:09 – 2:26
4	Recognise incorrect answer	2:30 -3:06
5	Quiz length error handling	3:18 – 3:36
6	Create and run through a quiz.	3:42 – 4:22
7	Close quiz	4:30 – 4:46
8	Writing score to a file	4:53 – 5:23
9	Reading score from a file	5:30 – 5:56

### Client Feedback

The client was initially a little unfamiliar with the text based design; we agreed that this was unimportant to the overall success of the project. It merely needing to be simple to use and, once the client understood the format, she affirmed that the program was simple to use and that she was able to navigate it herself. She found the definitions and the quiz itself very useful, beginning to incorporate it very quickly into her revision exercises. The program ran smoothly and appeared to be effective in achieving its function. Overall the client stated that she was very pleased with the program, and that it would make an effective revision aid for her A level biology.

### Potential Improvements

**Improved interface** – A more effective and clearer interface could have made the program more attractive for the client to use. However this was not considered to be a significant problem, as I had agreed with the client to make a program that was simple to use above all else, and that the text based interface was, ultimately, not a significant issue.

**Inclusion of questions and answers in the program** – Currently, the program reads the data for questions and answers directly from its own source code. With hindsight, it may have been more efficient and better practice to include these questions and answers in a separate file and have them be read in, allowing the same architecture to be used more easily for different subjects. However, this did not pose a significant problem in the success of the product, the project being a bespoke quiz for only one subject.