Biology QDT response to engagement feedback on revisions to Higher Biology and Higher Human Biology

Introduction

SQA held five engagement seminars across Scotland during February and March 2010. In addition SQA accepted invitations from three local authorities to provide engagement events. As a result approximately 350 teachers (including some FE lecturers) attended an engagement event. An engagement event was held for Higher Education at which there were 15 representatives. Through SQA Academy an online questionnaire on the draft proposals was provided. There were approximately 80 responses to the Higher Biology questionnaire and 30 responses to the Higher Human Biology questionnaire. Most responses were from individuals, although some were joint responses from departments or organisations. Some individuals and departments took the opportunity to respond directly to SQA.

The feedback received from these various different sources, although variable and in some cases contradictory, identified consistent issues that require further development. The main responses to each of the engagement questions are outlined below. After each question (**Q**), a summary of the feedback is given (*F*), followed by the response or recommendation of the Biology Qualifications Design Team (QDT). Biology QDT comprises a representative sample of biology teachers and representatives from Further Education, Higher Education, HMIe, SQA, LTS and SSERC.

SQA have taken on board the recommendations of the QDT. SQA Officers and members of the QDT are currently making further revisions to the proposed content of both Higher Biology and Higher Human Biology. Publication of the Assessment Arrangements for Higher Biology and Higher Human Biology is now planned for 1 November 2010.

Q: What is your view on changing the proportion of KU to PS/PA?
F: The majority were in favour of maintaining the present proportions; others would be happy with a minor increase in the proportion of PS.

The QDT recommends that the present proportions of KU to PS/PA are maintained although setting teams should be able to recommend increasing the proportion of PS in the light of operational experience. The QDT recommends that previous assessment items are analysed to provide a resource that provides information on the level of demand of different question types and that the specimen paper should include an analysis of question type

Q: Are you happy with the suggested framework for assessment?
F: Almost all were in favour of this suggestion.

The QDT recommends the adoption of this assessment framework.

Q: Should the current examination structure (sections A, B and C and their components) be maintained?

F: In general, there was very strong support for retaining the present exam format with a small number of suggested modifications.

The QDT recommends that the present exam structure is retained. The QDT shares concerns expressed regarding the volume of reading within the exam and recommends that the number of marks in both Highers should be reviewed. The QDT recommends that question types that assess analytical and critical skills continue to be a feature of examinations and be developed further. Questions on wider social, economic issues and applications of biological science should be developed and introduced gradually into the exam. In addition, the QDT recommend that consideration is given to developing the type and variety of extended response questions.

Q: Should the present unit assessments be retained until CfE assessment becomes clear?

F: A large majority were in favour of retaining the present arrangements for unit assessment.

The QDT recommends that the present approach to Unit assessment is retained.

Q: What are your views on incorporating a Researching Unit into these Highers?

F: Most respondents did not favour a Researching Unit for the development of skills but indicated a preference for a case study approach throughout the course.

The QDT recommends that Case Studies be produced to develop the skills, knowledge and understanding of biological science with the associated attributes and capabilities of CfE.

Q: Are you happy with the format of the course contents (column 1 with contents, column 2 with increased detail, column 3 with non-examinable learning activities)?

F: There was overwhelming support for this format.

The QDT welcomes the view that this format is helpful and recommends that the detail in the arrangements is carefully reviewed to remove any unnecessary complexity.

Q: What are your views on the value of the suggestions for Case Studies?

F: The specification for a Case Study must be agreed and clearly defined, exemplars must be produced and be of high quality.

The QDT recommends that a clear specification for a Case Study is published. The QDT recommends that at least three exemplar Case Studies per Unit are developed.

Q: What are your views of the content of Higher Biology and Higher Human

Biology?
F: All welcomed the update of modern content and the increased relevance of the material in both Higher Biology and Higher Human Biology. However feedback indicated that both courses required significant modification.

Higher Biology
Many were critical of the applications rationale of Higher Biology and felt that the content was too narrow in its focus. In addition, many felt that significant topics, such as evolution and ecology, were missing from the contents. While many welcomed the increased detail in the contents, there was concern that the material was too difficult in areas such as DNA and the cell cycle.

The QDT recommends that the Higher Biology contents be developed into a broad and up-to-date selection of concepts and ideas relevant to central position of life science within our society. It should cover all of the major themes of biology (cells, evolution, genetics, homeostasis, energy and ecosystems) and provide good opportunities to develop investigative science and practical skills. Within each of the three Units the scale of topics should range from molecular through to whole organism biology and beyond. This will allow learners to develop deeper understanding of the underlying themes of Biology. In addition, to increase the relevance of the course, within each Unit the most relevant applications of biological understanding should be highlighted.

Higher Human Biology
The contents of Higher Human Biology were welcomed by many although the depth and difficulty of the molecular biology was criticised.

In Higher Human Biology the QDT recommends that the issues relating to the difficulty of demand of areas of molecular biology be addressed and that the detail in the arrangements is carefully reviewed to remove any unnecessary complexity.

Feedback was also received on resources and CPD requirements. Learning and Teaching Scotland gathered this feedback.

NB:

As stated previously, SQA Officers and members of the Biology QDT are taking on board these recommendations. The proposed content of both Highers are being further revised to address the issues raised through the engagement process. In order to take account of all these issues, publication of the Arrangements for Higher Biology and Higher Human Biology is now planned for 1 November 2010.