

Review of Higher Physics

Summary of engagement feedback from seminar and online comments.

Teachers, lecturers and other interested parties have provided a significant amount of useful feedback to the Qualifications Design Team (QDT) proposals for revisions to Higher Physics. This feedback has been collated from written statements produced at the recent national seminars, and also during online consultation on SQA Academy. A number of professional bodies also provided comment on the proposals. The feedback has been enormously helpful and has informed the QDT at meetings during which the comments and suggestions were considered.

Summary of feedback (seminar, online and written)

The QDT is extremely grateful to those who made comment on the proposals, either as individuals or as part of a group response. A large number of very useful comments were received and many common themes were highlighted.

Overall, the proposals were received favourably. Most respondents made a number of positive comments and suggestions for improvements were received and welcomed.

The proposal to include two outcomes, together with their associated performance criteria, was well received. Most saw this as a welcome simplification and the proposed harmonisation across the sciences was applauded. A number of respondents raised the question of what would be the balance between K&U and Skills in assessments and it was also pointed out that uncertainties did not feature in the proposed performance criteria.

The proposed common format of the content tables was considered to be another welcome example of harmonisation. However, there was some concern about potential ambiguity in the notes column of the content tables. Also, lack of detail in the notes was considered to be an issue in terms of newly qualified teachers and in terms of the new content.

Open ended questions provoked considerable discussion. In general, the proposal to include some open ended questions in assessments was well received although many suggested that the number included should be small, at least initially and until the profession gained confidence in marking them.

The content that was presented in the content tables was mostly perceived as a desirable development. A majority were in favour of introducing particle physics, astrophysics and special relativity, although a significant number pointed out that these topics would not lend themselves to traditional school laboratory type experiments. A number of respondents raised concerns about some physics topics moving out of Higher. Examples included gas laws, dosimetry and semiconductors. Many respondents highlighted the need for CPD to ensure that their skills would be sufficient to enable the new material to be taught. A significant number of respondents suggested that the proposed content had not been decluttered as much as was desirable. It was pointed out that this was particularly true for the 'Electrons at Work' unit.

The Researching Physics Unit was very well received although a significant number of respondents pointed out that the proposed assessment represented a significant workload issue, and the introduction of the unit would have resource implications. Issues relating to

the assessment of individuals during group work were raised, together with some concerns regarding verification.

Development work to be undertaken in the light of comments received.

The QDT for Higher Physics has met on a number of occasions to consider the comments received during the engagement process. A programme for development of the proposals has been agreed and amendments are being made in line with many of the commonly expressed views arising from the feedback.

The following is a list of action points and projects that the QDT intends to work on in preparation for the production of the arrangements and specimen paper for the new higher.

1. Further decluttering of the content – particularly in the Electrons at Work unit.
2. Further consideration of content tables to ensure coherence and progression within the topics and units.
3. Developing the 'notes' column of the content tables to ensure there is no ambiguity.
4. Develop the 'contexts' column of the content table to include investigative and updated activities (working in conjunction with Learning and Teaching Scotland).
5. Give careful consideration to the balance of questions assessing K&U and Skills outcomes during the construction of the specimen paper.
6. Develop support material to enable CPD to be undertaken in preparation for the introduction of open ended questions (Working in conjunction with Learning and Teaching Scotland).
7. Revise the proposals for the unit assessment of the Researching Physics unit so that the assessment is simplified and the assessment workload is reduced.
8. Revise the proposals for the unit assessment of the Researching Physics unit so that there is clarity about which outcomes can be assessed through group work.