

Biology

Appeals Feedback to Centres 2002

The following is a summary of common reasons for unsuccessful appeals.

1. Information missing

- (a) assessment instrument(s)
- (b) marking instructions or criteria
- (c) candidate evidence
- (d) mark or grade on candidate evidence
- (e) cut-off scores.

2. Issues relating to the validity of the assessment instrument and/or marking scheme

- (a) Sufficiency of evidence: knowledge and skills not adequately sampled
 - Too high proportion of PS questions
 - Over assessment of data handling skills
 - Under assessment of problem solving skills in a practical context
 - Questions set in a practical context which test KU and not the PS skills detailed in the External Assessment Specification of the arrangements document.
- (b) Sufficiency of evidence: 'prelim' concentrates on early part of course; no additional evidence.
- (c) Level of demand of evidence: tasks/questions set at too low a level (do not meet grade descriptions)
 - Insufficient A type questions of the 'explain, account, with supporting argument..' variety.
 - Complexity of data does not meet the specifications in the arrangements document.
- (d) Level of demand of evidence: mark allocation over-generous
 - Too many marks allocated to questions which in the external exam would have only 1 or 2 marks allocated.
- (e) Level of demand of evidence: cut-off score(s) set too low
 - This is often because of insufficient A type questions or over-generous allocation of marks to questions or because of a marking scheme which is over generous in terms of demands required to gain the marks.
- (f) Integration: insufficient activities requiring knowledge to be retained over extended period of time

3. Issues relating to the reliability of the assessment decision

- (a) Concerns that the assessment is in the public domain and may have been seen by candidate
 - Use of the specimen paper and questions in it should be avoided since the paper is available on the SQA website together with its marking scheme and therefore its use calls into question the reliability of the assessment
 - Use of questions from past papers which are available from commercial publishers together with the marking schemes should be avoided. Questions should be adapted as much as possible and care should be taken to select from as wide a variety of sources as possible when compiling an assessment instrument.
- (b) Too much of the assessment is based on a single past paper.
- (c) Ambiguities or technical errors in some questions and marking scheme.
- (d) Problem in application of marking scheme: inconsistencies in interpretation.
- (e) Problem in application of marking scheme: leniency in interpretation.
 - Lenient application of marking scheme for extended-response questions.
 - Marking scheme for extended-response questions lenient with too many possible marks available.
- (f) Problem in application of marking scheme: clerical errors in addition of scores.

4. Biology specific issues

- (a) Insufficient demands for mark allocation in extended-response questions.
- (b) Over allocation of marks to extended-response questions.
- (c) Data handling questions lack sufficient complexity.
- (d) Lack of evidence of high order problem solving skills.
- (e) Over/under allocation of marks to one skill eg selecting or presenting information, conclusions, evaluation.
- (f) Inadequate assessment of practical problem solving skills.
- (g) Too many KU multiple choice questions.
- (h) Multiple choice questions too easy.

For National Qualifications

- No evidence for course work for Unit 3 supplied: evidence for an appeal must cover all component units of the course
- NAB tests do not provide evidence of attainment at course level
- High scoring NAB evidence for the unit not covered in the 'prelim' can only support an appeal for Grade C

- Low scoring NAB evidence for Unit 3 does not support appeal for C Grade
- Appeals for Grades A and B require evidence of course attainment of the appropriate grade for all units in the course
- Where evidence of performance in all units was provided, sometimes there was no indication of how both assessments (usually a prelim covering Units 1 and 2 and a second test covering course level work for Unit 3) were used in order to obtain the final candidate estimate.

For Standard Grade

- No general evidence provided so grade 3 cannot be awarded
- Candidates cannot be given an amended grade at a level higher than the paper taken.

Recommendations to centres

1. Centres are referred to:
 - The Arrangements documents published June 2002 which detail the External Assessment Specification. Assessment instruments used for evidence for appeals should meet the specifications as detailed.
 - External Assessment CD Rom (HSDU in conjunction with SQA and Media Matters; Distributed by Learning and Teaching Scotland, January 2001)
 - The document: *Guidance on generating evidence for National Course Estimates and Assessment Appeals* Second edition Feb. 2001- publication code A0992/2.
 - The letter issued to centres from Hugh Gordon in Feb 2002 with *Notes of guidance for Centres on the Appeals process and on the preparation of evidence to support estimates and Appeals* which is also available on the SQA website on www.sqa.org.uk.
2. Centres should ensure that evidence is submitted covering all aspects of the exam ie multiple choice questions, structured questions, extended response questions, data handling questions and experimental questions (all 7 PS categories must be tested, see eg Higher Biology page 38 of Arrangements, June 2002).
3. Centres are advised to note that standards are best exemplified in the actual examination papers 2000-2002 rather than the specimen paper (especially for Higher Biology and Higher Human Biology).
4. Centres have been supplied with stats for the multiple choice questions used in the 2000-2002 examinations. Care should be taken to ensure that a range of questions of varying difficulty are included to ensure coverage of the Grade Descriptions. The National Examination paper multiple choice section is compiled to an average facility value of 0.56 (for each question the higher the facility value the easier the question). Given the advice in 3a above, Centres should try to adapt the questions as much as possible and at the very least change the position of the key (ie the correct answer) if the question is to be used in a prelim.