Scottish Qualifications Authority

Code of Practice Governance Group

19 March 2020

Determining Entitlement of Graded National Courses in Diet 2020

1 Context

SQA and Scottish Government have discussed possible options as a result of the impact of the COVD-19 public health emergency on the SQA annual Diet. These have included delivering the full timetabled Diet with a range of contingencies to address issues as they arise; re-scheduling the full Diet to a later point in the year and exploring the feasibility of an Enhanced Estimates Model (EEM) in which the Chief Examining Officer would be prepared to certificate in the absence of a 2020 exam diet.

A further consideration of the emerging public health implications of COVID-19, particularly on learners, teachers, SQA Appointees and SQA contingency measures with Scottish Government indicates that the first two options are no longer viable. This paper sets out the third option.

2 Status

SQA has a duty to ensure that the standard of its qualifications is credible with learners, their parents, schools, colleges, universities and wider stakeholders.

This paper outlines our current approach and the EEM model. Secondly, it identifies areas for further action. Thirdly, possible benefits and risks of this *in extremis* model are listed and final recommendation made.

a National Course Assessment and Grading (current model)

The Education Act (Scotland) 1996 provides SQA with a degree of latitude in determining the form of assessment and level of competence required for awarding SQA qualifications (see Appendix One).

Currently graded National Courses (National 5, Higher and Advanced Higher) are assessed through a combination of Coursework and/or Question Papers as outlined in the relevant Course Specification. However, other existing processes, e.g. Exceptional Circumstances, may overwrite these assessment requirements.

During Awarding Meetings each year grade boundaries are set following a consideration of a range of qualitative and quantitative information. The boundaries set are – Upper A (Band 1), Lower A (Band 2) and Lower C (Band 6). All other grades and boundaries are automatically calculated based on these boundaries. There is no other mechanism currently used for setting grade boundaries.

b Enhanced Estimates Model

A multiple linear regression model is under development and some testing has taken place. This is a statistical technique that uses several explanatory variables to predict the outcome of another variable of interest. The model is being developed using three variables: Estimates, Coursework marks and prior learner attainment to predict an overall course ‘mark’ for each

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candidate. The three variables are currently used in Awarding Meeting decision-making to varying degrees.

The model will require an agreed and consistent approach to determining A-D distribution for each individual subject/level to assign a grade to each candidate. Candidates will not be assigned bands. The model is being developed from Diet 2019 data as this is the only full component level data we have available.

Estimates
Centre are required to submit estimates for candidates. SQA guidance to centres is that an estimate should be based on the candidate's demonstrated attainment in all aspects of the course (i.e. all course components) and should reflect the candidate's demonstration of the required skills, knowledge and understanding for the band estimated. All things remaining equal, the use of estimates, is a combination of demonstrated candidate performance in formative assessments and professional teacher judgement. While there is some variation across subjects, levels, centres and local authorities in terms of predictive accuracy of estimates they are broadly seen to rank candidates appropriately. Additionally, estimates are currently used in Awarding Meetings as an indication of cohort ability.

Coursework
Coursework already forms part of the course assessment in most National Courses, apart from Mathematics and Latin. If submitted and marked it provides real candidate assessment data for inclusion in the model. However, the correlation between coursework and question paper performance is inconsistent and can be relatively weak. There is a need to identify and take account of any changes to Diet 2020 Coursework from Diet 2019 Coursework.

Prior Attainment
Prior attainment is not available at National 5 or for all candidates in Higher and Advanced Higher due to bypassing and 'crash' courses. However, it is a useful predictor of performance where present. It is currently used as an indication of cohort ability in Awarding Meetings.

c Further Development Activities

A-D Distribution
SQA does not operate a norm referenced awarding model, for example, a set quota for each grade. In the Minimum Viable Product model this will be required. An agreed and consistent approach to identifying the grade distributions will be required, e.g. matching a specific year or a mean of more than one year.

Missing Data and Lower Uptake Subjects
It is not possible for one statistical model to be used across the Enhanced Estimates Model due to a range of factors. This includes missing variables, where courses do not actually have Coursework components and its applicability at lower uptake levels. This may also include the submission of significantly fewer Coursework components for marking. An agreed and consistent approach to addressing these will be required.

External Validation of the Model
SQA would need to agree an acceptable level of model predictability. To provide a degree of externality, it may be helpful to ask the UK Statistics Authority to validate the technical statistical approach used in the model. Due to the limitation of the approach it is unlikely we would seek validation in an assessment sense.

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Equality Impact Assessment
A full Equality Impact Assessment will be required.

d Possible Benefits of EEM

i Agreed and consistent methodology subject to some variation where Coursework and/or prior attainment is not available;

ii Use of variables already included in grade boundary decision-making;

iii Incorporates actual assessment of candidate work and professional teacher judgement;

iv Centres experienced in estimating candidate performance.

e Possible Risks of EEM

i National solution which may not recognise centre-level differences;

ii Requires submission, marking and quality assurance of Coursework;

ii Requires estimates to be submitted;

iii Estimating practice may change as a result of the perceived 'high stakes' use SQA will make of this information;

iv Lack of predictive ability within model;

v Risk to learner, parental and legal challenge.

3 Recommendation

The Code of Practice Governance Group is invited to consider the issues raised in this paper and, subject to the further development activities outlined, approve that candidate entitlement of Graded National Courses in Diet 2020 is determined through the Enhanced Estimates Model.

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Appendix One

General Functions of SQA - Education Act (Scotland) 1996

(1) SQA shall have the following general functions:

(a) to devise qualifications;
(b) *to determine the entitlement of individuals to SQA qualifications and, where a person is so entitled, to award and record such a qualification;*
(c) to keep under review and develop SQA qualifications;
(d) to approve education and training establishments as being suitable for presenting persons for SQA qualifications; and
(e) to make arrangements for, assist in or carry out the assessment of persons undertaking education and training

(2) The functions mentioned in paragraphs (a) and (c) of subsection (1) above include a power for SQA, in relation to a SQA qualification, to:

(a) *determine what it is that a person is required to do and the level of competence he is required to demonstrate in order to attain the qualification;*
(b) determine the means of assessing whether he has done what is required or demonstrated the level of competence required.
(3) Paragraph (a) of subsection (2) above includes a power to devise a programme of learning.
(4) SQA shall not exercise any of its functions under this section or section 3 of this Act in relation to a degree.

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