



National Qualifications Internal Assessment Report 2012 Information Systems

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

National Qualifications (NQ)

Titles/levels of National Qualifications verified:

- ◆ C216 11 Information Systems (Intermediate 2)
- ◆ C216 12 Information Systems (Higher)
- ◆ C216 13 Information Systems (Advanced Higher)

General comments

Central verification focused on the Coursework for the Intermediate 2 and Higher Courses this year.

Of the 29 centres verified, there were 20 'Accepted' and 9 'Not Accepted', which equates to approximately 31% of centres 'Not Accepted'. This is an increase on the previous year.

Centres are now providing all the necessary documented evidence as stated on the Coursework task and this also helps the verifier confirm the marks awarded to a candidate. However, it should be noted that if a report is required then this is the necessary documented evidence and a screenshot should not be provided.

It is encouraging that the marking of candidates' work is now more regularly accompanied by clear comments to support the awarded marks. This helps the process of external verification as it explains to the verifier why the teacher/lecturer has awarded/not awarded a particular mark.

In addition, more centres are highlighting the parts of the printed evidence where marks have been awarded/not awarded and this is also helpful during central verification as it clarifies the reason for awarding the mark given.

One area of concern was that the detailed marking scheme was not applied correctly by a number of centres. The detailed mark scheme must be applied exactly as stated.

Advanced Higher

Advanced Higher verification is carried out through visits to the presenting centres.

Candidates carry out a project which accounts for 80 marks out of the 200 available. The project is an opportunity for candidates to demonstrate the skills of development through a substantial piece of work.

The standard set by the verified centres was appropriate to the level.

Five centres were verified. There were 5 'Accepted' and 0 'Not Accepted'.

Course Arrangements, Unit specifications, instruments of assessment and exemplification materials

For Intermediate 2 and Higher, centres all used the correct Coursework task and marking scheme for 2012.

For Advanced Higher, the evidence provided by centres demonstrated that centres were aware of the standards expected. All centres had used the correct instrument of assessment including the correct marking scheme.

Evidence Requirements

Centres generally provided the necessary evidence for the relevant Intermediate 2 and Higher Coursework task. Screenshots/print outs required were clear and the information required for central verification to be carried out successfully was generally easily read.

For Advanced Higher, the Evidence Requirements were met in all cases. The centres provided paper copies of the candidate's project and the candidate log book. Centres made the candidates' material available which made the verification process straightforward as marks could be confirmed accurately and quickly.

Administration of assessments

The use of internal verification procedures was in evidence for many centres. However, several centres did not show evidence of internal verification.

Best practice demonstrated in this area involved a second teacher/lecturer marking the work without access to the original marks awarded. The two sets of marks were compared and if discrepancies existed an agreed mark was applied.

A variation of this process was demonstrated where a partner school was used to perform the internal verification process.

Some centre evidence available during the verification process caused concern as it showed unacceptable practice as the dating/order of completion was not in the expected task order, for example, the design had been completed on a date after implementation of the database.

For Advanced Higher, centres had provided suitable support and advice to candidates on the standards expected for this level of Course.

The candidates had completed projects which allowed them to demonstrate the key stages of developing an information system including modelling and implementation.

Where possible the centre had carried out internal verification procedures accurately. Where a centre did not have another suitable member of teaching staff available, the centre had looked to colleagues at another centre close by to help carry out internal verification.

Areas of good practice

Many centres provided evidence of good practice in Intermediate 2 and Higher, for example:

- ◆ The award of marks on the marking scheme is now more frequently being supported by clear comments on where/why marks are awarded. This aids the process of central verification as this clarifies the approach taken by the centre to awarding marks.
- ◆ The use of lookup is now being more consistently supported by the use of 'limit to list' or using referential integrity to prevent inappropriate data entry.

In Advanced Higher, centres exhibited good practice in the following areas:

- ◆ All necessary resources were immediately available to the visiting verifier. Project documentation and log books were presented well, organised well and easily read. Log books contained all necessary detail to show the development of the project. The log books identified dates and work carried out.
- ◆ The project work had been accurately marked based on the candidates' submitted evidence. Comments on the reason for awarding marks were consistently used by all centres which aided the accuracy of the verification process.
- ◆ The project work chosen by candidates allowed for a 'real-life' scenario and provided the candidate with the necessary depth to allow all necessary modelling and implementation skills to be demonstrated.

Specific areas for improvement

If no comment is given for a particular task, centres have generally shown understanding of the standards required.

Higher

Task 1 — Data Dictionary

The data dictionary was generally marked appropriately by centres. Centres should however note:

- ◆ Lookup must be from the entity and not the attribute. Therefore 'Lookup from Venue' was acceptable but not 'Lookup from VenueName'.
- ◆ As with previous years, marks were incorrectly awarded by centres for inappropriate/missing combinations of primary key [PK] and/or foreign key [FK].

Task 2(a) — Create Certificate table

Generally, marks were awarded appropriately for the creation of the Certificate table. Issues continue to exist with the setting up of the table as follows:

- ◆ Where the validation used is a lookup to another table, 'limit to list' must be applied. This is an issue raised previously and centres are still failing to award reduced marks when candidates have failed to implement this.
- ◆ Several candidates had entered validation text but not a validation rule and marks had been incorrectly awarded.
- ◆ Where documenter is used centres should make sure all necessary information is included.
- ◆ Evidence of data types, validation and primary/foreign keys must be available. The use of a documenter or similar should make sure all information is available.

Task 2(b) — Links Between Tables

This area improved from 2011 and is only a rare issue. Centres provided the necessary documented evidence as specified in the teacher's notes and on the candidate's Coursework task sheet, showing the cardinality as required.

Task 4 — Report [Courses and Awards]

The marks awarded by centres were generally appropriate. Occasional discrepancies in marking appeared, including marks being incorrectly awarded for:

- ◆ Grouping by levels incorrectly applied
- ◆ No 2nd/3rd sort
- ◆ Layouts where labels/data could not be fully seen.

Task 5 — Navigation links

Again marks were appropriately awarded. Where issues existed this was mainly because there was no evidence provided to show that a form was closed.

Task 6 — Export and Creation of Spreadsheet

Overall, this task was completed and marked appropriately, however there were some areas where marks were incorrectly awarded when:

- ◆ the formula was not visible
- ◆ the alignment did not match provided sample
- ◆ the formatting of data was incorrect

Task 9(a) and (b) — Macros to Sort

Generally, the application of the marking scheme by centres was appropriate for the task based on the sample centres.

In Part 9(b) where a multiple column sort was to be performed, there were instances where marks had been incorrectly awarded where the candidate had

carried out four separate sorts rather than one, or had performed a sort which was ascending rather than descending.

Task 10(a) and (b) — Personal Information Software

Generally, the application of the marking scheme by centres was appropriate for the task based on the sample centres.

In Part 10(a), where a filter was required to be set up to place e-mails in a folder, errors were made in setting up the filter. The filter applied looked for a specific e-mail address rather than all e-mails from PAFI.co.uk.

Intermediate 2

All print outs should have the candidate's name and task number in the header and footer. This mark was not awarded consistently by centres and care should be taken in future tasks that all print outs are labelled appropriately.

Task 1 — Create Holiday & Hotel Table

The marks awarded in this area were acceptable. Centres should note that full marks cannot be awarded if all primary keys, all data types and sizes and all formatting are not correct.

Task 2 — Restricted Choice

The main issue is for centres to make sure that candidates limit the field so only the listed options can be chosen. A number of centres incorrectly awarded marks to candidates where other options could be typed. 'Limit to list' options should be selected.

Task 4 — Print out/screen shot of design.

Issues arose where centres awarded marks for the printout/screen shot being complete although aspects including data types and sizes were not included.

Task 5 — Form for One Record

Issues that arose were due to marks being awarded where incorrect evidence was presented. This included:

- ◆ A layout that showed more than one record.
- ◆ Holiday name and hotel name not standing out clearly. The candidate may have made an attempt but the difference was not clear enough.

Task 6, 7 and 8 — Reports

All labels and data must be included and visible for the one mark to be awarded.

Task 9 and 10 — Chart

In some cases marks had been incorrectly awarded where:

- ◆ the axis was not labelled
- ◆ there was incorrect chart evidence

Tasks 11, 12, 13 and 14

The issues that arose included:

- ◆ use of SUM along with the formula $E2 * F2 * G2$. This has been highlighted in previous years as not acceptable and is clearly stated on the detailed mark scheme.
- ◆ No evidence to show that the formula is correct. This includes printouts where only part of the formula can be seen.
- ◆ Formula being awarded marks where it cannot provide the correct answer.

Tasks 15, 16 and 17

The standard of the leaflet and marking were generally good, however, there were some instances where marks were awarded although:

- ◆ there was inconsistency in headings and sub-headings
- ◆ pictures and information did not match

Advanced Higher

The sample this year demonstrated a good standard. Reference to the sample project on SQA's website may provide suitable support to centres.

Areas that centres should pay particular attention to are:

- ◆ Inputs, processes and outputs for the systems require to be defined accurately, providing as much detail as possible.
- ◆ Normalisation: a clear listing at UNF showing repeating groups will be a basis for the remainder of the process. Centres need to make sure candidates state the attributes they are including accurately. Centres need to be careful when marking normalisation that errors in the process are identified and the marking scheme is applied accordingly.