



Internal Assessment Report 2010: Information Systems (358)

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

National Courses

Titles/levels of National Courses verified

C216 11: Information Systems

C216 12: Information Systems

C216 13: Information Systems

General comments

There was a considerable reduction in the number of centres selected for central verification for Intermediate 2 and Higher. Of the 29 centres verified, there were 24 'Accepted' and 5 'Not Accepted', which equates to approximately 17% of centres 'Not Accepted'.

Though this figure is similar to 2009, the level and range of discrepancies has narrowed, and centres are applying the detailed marking scheme more consistently and accurately than in previous years.

It was disappointing to note that issues that had been raised in previous Internal Assessment Reports were still present. An example of this was the inappropriate use of the SUM function by a number of candidates. This had been commented on previously as unacceptable, and some centres are still awarding full marks to candidates where the SUM function has been used inappropriately.

It was suggested that it would aid the verification process enormously if candidates' hard copies of reports were annotated to explain why marks had been awarded or deducted.

Detailed comments provided in the marking grid are extremely useful to the verifier as a guide to how marks were awarded — or, in fact, as a guide to the amount of help provided.

In the same way, centres should provide documented evidence to support the awarding of marks. This may be a captured screen shot or a printout of the candidate's work.

An example of where this did not occur was where a formula had been used in a spreadsheet. The formula was only partially visible as the column width had not been widened to show the complete cell width and with it, the complete formula. This resulted in a deduction of marks for the candidate.

In relation to spreadsheets, it would aid verification if row and column headings along with gridlines were included on all printouts.

Visiting verification for Advanced Higher continues to be successful. With the introduction of detailed marking instructions for the Coursework project, most centres carried out the marking of the project accurately and consistently.

One centre used a team approach as the solution for the Coursework project. Although this is an acceptable approach, centres should note that there must be evidence of individual candidate performance, and not a co-operative submission if marks are to be awarded.

The use of internal verification procedures was in evidence for many centres.

Best practice demonstrated in this area involved the centre marking the work a second time but without access to the original marks. The two sets of marks were compared, and where discrepancies existed an agreed mark was applied.

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

Areas of good practice

Many centres provided evidence of good practice.

The allocation of marks is now more frequently being supported by clear comments on where/why marks are awarded. This aids the process of central verification, as it clarifies the approach taken by the centre to awarding marks.

Intermediate 2

Task 1 was generally well done. A few minor issues relating to the implementation of the primary key and use of the identified data types were noted.

Task 2 required a restricted choice validation check to be used. A number of centres failed to follow the advice given from previous reports in the Coursework task, and did not fully limit the list. A number of solutions allowed data other than the list to be entered.

Tasks 3, 4 and 5 were generally well done. Where a name has to be added to a printout, candidates should not add a new row of data with their name in it, but use a header or footer. Centres should note that it was expected that a header or footer be used on each printout the candidate produced.

Task 6 required the relationship to be shown, and most centres followed the instructions given. A few centres awarded marks to candidates where no clear documented evidence was included. The printed evidence should show clearly the relationships between the tables.

Task 10 was generally well done. The animal scene was created acceptably by most candidates, though a small number placed the scene as part of a master slide, which was not accepted.

Task 11 was generally acceptable. In awarding marks for the creation of the logo, centres were on standard for the background, cut-out of the tiger head, rotating text and drawing the border. Issues arose with respect to the transparency

applied, as a number of centres provided limited or no clear evidence for the candidate.

Task 12 was generally completed to a good standard. A few centres gave credit to candidates where a cut operation rather than a crop operation was carried out on the graphic. The re-sizing of the graphic was not carried out accurately in many cases, though marks were awarded to the candidate.

Higher

Task 1, the data dictionary, was generally marked appropriately by centres. Centres should note that where the validation rule is to be used in the design, the rule should be written out in full, eg ≥ 1 and ≤ 9999 . Similarly, where restricted data entry is to be used, a style similar to *restricted (Green, Black, Blue, Red)* should be used. Where data is displayed using entries in another table, a simple statement similar to that used elsewhere in the data dictionary, eg *lookup from customer*, would suffice.

In this particular task, the restricted list for ski days was accepted if the candidate listed it as *restricted (3 days, 5 days, 7 days, 10 days, 12 days)*. Though the data type is correctly stated as number, it was felt that it was appropriate to mark it in this way.

Task 2, on creating the database and relationships, was completed to a good standard. A few issues occurred where marks were awarded to the relationships without evidence of them. Centres must read the accompanying notes carefully before beginning the task, as all necessary information is provided to avoid this type of error.

In Task 6, which required use of the spreadsheet, issues arose as printouts failed to show complete formulae. Marks should not be awarded by centres where no evidence is given.

Task 7 required the creation of a Gantt chart. Though most solutions matched the detailed marking instructions version, alternative versions were possible. One point to note was in the calculation of the minimum time to complete the project. A few candidates made errors on the Gantt chart, producing a different minimum time than in the detailed marking instructions. The candidates were penalised for the error on the Gantt chart and for the incorrect minimum time. As the minimum time was correct, based on the candidate's work, the mark should have been awarded in this case.

Advanced Higher

Centres really appreciate the visiting verification model used for Advanced Higher. It gives the centres the opportunity to discuss their marking decisions and agree on how marks should be awarded for the project. Teachers/lecturers receive invaluable advice and support on the standard required for the project which, in turn, will help them significantly in marking the work of future candidates.

The following advice should continue to be adhered to by centres presenting Advanced Higher:

- ◆ Ensure there is evidence for every requirement of the marking scheme.
- ◆ Ensure complexity of the task, particularly relating to the processes involved in the task and the design of the user interface, is at Advanced Higher level.
- ◆ Ensure that the candidate's system design documentation, ie data modelling, data flow and entity modelling, matches the functional requirements in the specification.
- ◆ Ensure that the process of normalisation from UNF to 3NF is included and has been carried out correctly.
- ◆ Check E/R diagram reflects the normalised data model.
- ◆ The design, in relation to normalisation and E/R diagrams, should reflect the whole database system, and not individual sub-systems which have been normalised and E/R diagrams created independently of the other entities.
- ◆ Ensure the design of the user interface is carried out prior to implementation.
- ◆ Time allocation should be a plan of how long is to be spent on each activity, not a progress diary of how long was spent on each activity.
- ◆ Candidates must supply evidence of a complete working solution which has been systematically tested to match the original functional requirements.

Recommendations

The Coursework task is intended to give candidates the opportunity to apply their knowledge and understanding to a complex context. Centres should only award full marks where candidates have related their answers to the context of the task.

The sample Coursework tasks, which are contained in the Course assessment packs for each level, include sample solutions which indicate suitable levels of response.

Areas for improvement

Many of the areas for improvement have been highlighted in previous Internal Assessment Reports over the past three years. The issues listed below still occur.

Centres should make sure all necessary documentation is provided with the sample. A few centres failed to complete one or both of the Verification Sample Form (VS00) and the Information Systems Supplement Form.

Centres should make sure that the marks listed on both documents are the same.

Documented evidence must be provided to support the marks awarded. A few centres awarded marks where no evidence was available.

When creating a 'lookup' from a related table, candidates must either enforce referential integrity or set the limit to list value to 'true' in order that free text cannot be entered. A limit to list should also have been set to 'true' for the restricted choice validation to prevent the entry of free text.

It would be good practice for centres to annotate printouts from documenter to indicate where marks have been awarded or deducted. A few centres made use of highlighters to identify this, which aided the process of verification greatly.

Where the SUM function is used, marks should only be awarded for its correct use. A few centres awarded marks to candidates for incorrect use, eg =SUM (D5*F5).