



# **National Qualifications 2011 Internal Assessment Report Information Systems**

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 12 Information Systems (Higher)

C216 13 Information Systems (Advanced Higher)

### General comments

Central verification focused solely on the Coursework Task for the Higher Course this year. No Intermediate 2 Coursework was requested for central verification.

Of the 27 centres verified, there were 20 Accepted and seven Not Accepted, which equates to approximately 26% of centres Not Accepted. This is an increase on the previous year and may be a result of only the Higher Coursework Task being sampled.

It is encouraging to see that the marking of candidates' work is now more regularly accompanied by clear comments to support the awarded marks. This helps the process of verification as it aids the Verifier in determining whether the award of marks is fair or not.

In the same way, centres are now providing the necessary documented evidence as stated on the Coursework Task and this in turn helps confirm the marks awarded to a candidate. However, several centres produced documented evidence where the screenshots were too small to read. This is to be avoided as it may lead to a 'Not Accepted' result. In addition, more centres are highlighting the parts of the printed evidence where marks have been awarded/not awarded and this is helpful during central verification as it clarifies the reason for awarding the mark given. Both of these areas continue to improve year on year.

It should be noted that if a report is required then this is the necessary documented evidence and a screenshot should not be provided.

One area of concern was the application of the detailed mark scheme by a number of centres. It is expected that the detailed mark scheme be applied exactly as stated.

For example, in Task 2(a), 'Create gig table', though the marking scheme read 'attributes all correct' several centres awarded marks based on the number of errors made by the candidate rather than the number of fully correct attributes.

Centres should make sure that marks awarded for related printouts are correct. For example in Task 5, the navigation links, a candidate had used a filter correctly though the associated printout showed the results from a completely different filter. This was not reflected in the marks given.

Centres must make sure that the totals on the mark grid are correct. A number of arithmetic errors were found over the sample. Also, on a few occasions, the mark for a task had been omitted.

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

## **Administration of assessments**

The use of internal verification procedures was in evidence for many centres. However, some centres do not show evidence of internal verification and this should be considered.

Best practice demonstrated in this area involved a second member of staff marking the work 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 where a partner school was used to perform the internal verification process.

## **Areas of good practice/areas for improvement**

Many centres provided evidence of good practice. 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. Also, 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.

The comments that follow relate only to the Higher Coursework Task for 2011 as no Intermediate 2 sample was required this year.

### **Higher**

#### **Task 1 — Data dictionary**

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

- ◆ where validation rule is to be used in the design the rule should be written out in full, eg  $\geq 15$  and  $\leq 65$ .
- ◆ Lookup must be from the entity and not the attribute. Therefore 'Lookup from Venue' was acceptable but not 'Lookup from VenueName'.
- ◆ Marks were awarded by centres for inappropriate/missing combinations of primary key [PK] and/or foreign key [FK].

#### **Task 2(a) — Create gig table**

Generally, marks were awarded appropriately for the creation of the gigs table. Issues arose where centres did not follow the detailed mark scheme correctly. In certain cases though, the candidate had made errors in creating an attribute, missing one or more of the properties. Marks were awarded where they should not have been — in these cases it appeared centres awarded marks based on the number of errors made rather than the method stated on the mark scheme.

Centres should also ensure that where a 'lookup' is to be used, if a value list is implemented this should be reflected in the marks awarded.

Where documenter is used, centres should make sure all necessary information is included. For example, the property 'required' was missing though all other properties were shown.

### **Task 2(b) — Links between tables**

This area saw improved performance from 2010. 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 3 — Report [total revenue per city]**

The marks awarded by centres were generally appropriate. On occasion, marks were awarded when candidates had not sorted this data correctly.

### **Task 4 — Report [number of gigs by promoter]**

The marks awarded by centres were generally appropriate. Occasional discrepancies in marking appeared, and occurred when too many fields were listed.

### **Task 5 — Navigation links**

Again marks were appropriately awarded. Where issues existed this was normally due to the fact that the filter required had not been appropriately applied.

The failure to include documentation which showed that the link had been correctly set up for both 'selector to list of gigs' and 'list of gigs to selector' was an issue for a number of centres. A further issue was evidence submitted showing the correct 80 records but no evidence of how the candidate achieved this.

### **Task 6(a) — Defining styles**

This was generally completed satisfactorily. Where issues occurred it was, in the main, due to a lack of documentation being provided by centres.

### **Task 6(b) — Cover page**

A number of candidates did not complete this task to reflect the cover page issued in the Coursework Task specification. Some centres incorrectly awarded marks where the layout did not match the sample, for example where the URL was inappropriately placed, the border size inappropriate/non-existent a paragraph border was used rather than page border.

### **Task 6(b) — Insert image**

Marked appropriately by most centres. Where discrepancies existed it was due to the image being placed incorrectly and the type of wrapping being incorrect.

### **Task 6(b) — Applied styles**

Several centres failed to award appropriate marks where there were inconsistencies in the application of the styles. This included headings, paragraphs and tables.

### **Task 6(b) — Back page layout**

Generally marked appropriately. A common minor fault was that candidates failed to line up the two tables as shown on the original.

### **Task 6(b) — Footnote**

This task was marked inconsistently by several centres — in many cases due to the documentation presented by the candidate which failed to prove that a footnote had been used and that the candidate had not simply typed in the information. The symbol \* which was to be used was in many cases shown as a '1' and not marked down as appropriate.

### **Task 6(b) — Pagination**

Generally, this was appropriately marked. Where discrepancies existed this was normally due to candidates being awarded full marks despite leaving too much white space at the top of pages or before headings.

### **Task 6(b) — Table of contents**

Generally, well marked. Several centres' candidates had extra information in the centre of the page, but the marking failed to reflect this. Also, on several occasions, the table of contents did not appear to be automatically created, with the candidate possibly having typed the table.

### **Task 6(b) — Watermark**

This area was weak in terms of marking. Many candidates appeared to have copied and pasted the image onto the page as the positioning of the image was inconsistent over the pages required. This had not been identified by the centre and the candidate had not been marked appropriately.

### **Task 6(b) — Headers and footers**

Marking of this task was satisfactory.

Common faults in marking this section included instances where incorrect alignment, numbering on pages other than those required, etc was not reflected in the marks awarded.

### **Task 6(b) — Print brochure**

No issues existed for this activity.

## **Advanced Higher**

Six centres were visited this year as part of visiting verification for this subject. All centres were Accepted. The centres visited this year were in line with national standards and applied the mark scheme correctly and appropriately.

The following statements have been issued previously but are worth repeating to aid new centres and to confirm expectation at this level.

Centres really appreciate the visiting verification model used for Advanced Higher. It gives the centres the opportunity to discuss why marks were awarded on the Coursework Project. Moreover, teachers/lecturers receive invaluable advice and support on what is expected as the national standard for the project which, in turn, will help them significantly in marking the projects 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 that the 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 and not screenshots of the interface which has already been implemented.
- ◆ 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.

## **Specific areas for improvement**

The following points have been highlighted in previous internal assessment reports and are intended to give guidance on issues that have arisen over the previous years. These are still relevant to the Coursework Task for this and future years. This may be helpful for staff new to the subject.

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 and out of the appropriate total for the level undertaken.

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. Limit to list should also have been set to 'true' for the restricted choice validation to prevent the entry of free text. In many instances where this was not done the marks awarded did not reflect this.

It is good practice for centres to annotate printouts from documenter to indicate where marks have/have not been awarded. A few centres made use of highlighters to identify this which aided the process of verification greatly.