



# **Internal Assessment Report: Computing (357) Information Systems (358)**

Sector Panel or SSC:

e-skills

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

# Higher National Units

## General comments

External verification of individual HN Units showed an increase on the previous year, with 36 visits having been scheduled and taken place and 95 Units sampled, compared to 13 visits and 52 Units in 2007–2008. The figures for this year are, however, broadly similar to those of 2006–2007.

'Not Accepted' procedures (holds) were put in place for three of the visits, and in six visits there were development points made. These are summarised in the section on areas for further development. It was also noted that there were a substantial number of references to areas of good practice within the reports, many on common themes. All follow-through actions from previous visits had been undertaken satisfactorily.

Three centres were involved in COVE (Co-ordinated Verification Event) exercises. These visits sample provision across a number of subject activity areas over a three day period, during which SQA Qualification Approval and Verification Officers, Quality Enhancement Managers and other SQA staff are on hand to support and assist both the centre and the External Verifier. It was agreed that these were most successful and provided both the centres and SQA with useful feedback on their quality systems.

From the reports it appears that the internal verification systems within the centres sampled, are well thought out with appropriate strategies and very well documented. In most, but not all, centres they are being carried out effectively. There were many favourable comments about sampling policies and plans being well thought out. The presentation of candidate materials and centre master packs were, overall, considered to be in very good order, well documented and structured.

Last session's report mentioned a lack of reference to the use of e-assessment within reports and asked External Verifiers to comment in future. It is very pleasing to note the substantial number of centres that are now involved, to some extent, in the use of online systems for assessment purposes. Within the reports a major increase is reported in use of VLEs for delivery of assessments including tracking and recording. In addition, some centres have well developed online systems for storage of 'master folder' materials — including assessments, standardisation materials, eg marking guidelines, suggested solutions and internal verification activity. All of this helps to ensure consistency.

Overall comments on actual standards being implemented by centres, in meeting the Evidence Requirements, Knowledge and Skills Values and Outcomes were satisfactory. However, there were still some assessment issues identified. Included in this is the construction of instruments of assessment. In a few cases these did not comply fully with the Unit specifications.

Whilst many centres already engage with the Prior Verification service provided by SQA, it is strongly recommended that the SQA Prior Verification service is used when centres are constructing their own assessments or making major modifications to the assessment exemplars.

It is worth noting that there was still a significant number of centre-devised assessments, particularly assignment-based assessments, which contained candidate instructions that were lacking in clarity as to what the candidate is actually required to perform in their set tasks.

Some feedback from External Verifiers suggests that assessment practices and Unit specifications are not being followed consistently by all assessors, eg the need to adhere to Evidence Requirements. It may well be that there is a need for ongoing CPD training on this, as well as the role of assessors in judgement of candidate performance.

## **Advice on good practice and areas for further development**

The following items were identified by External Verifiers and reported on as good practice:

- ◆ pre-delivery checklists were in place
- ◆ clear policies on access arrangements
- ◆ all materials had been prior verified
- ◆ strong quality procedures in place, eg well documented application of internal verification procedures to instruments of assessment
- ◆ sampling policies and assessment strategies were well thought out and robust internal verification system procedures applied
- ◆ appropriate and good level of feedback — useful for evaluation
- ◆ control of submissions through electronic process with date stamping
- ◆ use of real-life scenarios and clients within project-based assessments and positive engagement with employers and public — where internal, reflection of current work practices in scenarios/cases (both Graded Units and Units)
- ◆ candidates extended and encouraged to incorporate own research into submissions
- ◆ non-adherence to standards picked up by internal verification system and rectified
- ◆ candidates able to utilise e-logs and blogs to organise and retain evidence — assists in reflective practice
- ◆ involvement of representatives from industry in presentation of candidate projects
- ◆ clear assessment and delivery plans
- ◆ team involvement in developing instruments of assessments
- ◆ good detailed feedback gave clear indications about requirements for remediation
- ◆ some developments for integration within and across Units are being noted
- ◆ instruments of assessment for Information Technology Applications Units seen, had been contextualised to meet the needs of the overall specialist awards which candidates were undertaking — these provided some integration, through a contribution to the product evidence for other Units within these awards
- ◆ positive feedback comments to candidates, both in general and for remediation purposes, were noted on forms, on candidate scripts and through VLE forum —these provided a good level of support for candidates (also useful for verification purposes)

The following items were identified by External Verifiers and reported on as areas for further development:

- ◆ Actual internal verification of candidates work was not so good — strategy and procedures were not followed.
- ◆ Not all centres applied appropriate assessment strategies, eg not internally verifying the first run-through of new Units.
- ◆ There was no strict adherence to stated internally devised marking schemes.
- ◆ All centres should ensure that current versions of Unit specifications are in use.
- ◆ All assessors should pay special attention to Unit specifications — Evidence Requirements should be adhered to.
- ◆ In one case an instrument of assessment which had not been internally verified was used and was found to be not valid.
- ◆ There was a lack of clarity in candidate instructions in a number of instruments of assessment.
- ◆ Within DH3F 34 Systems Development: Introduction, the diagrams created in some candidate scripts were not well produced and lacked some clarity of representation.
- ◆ Within the DH35 34 Computing: Planning Unit, it was felt that there was not much evidence of top level design presented and that some of the test data/items were not particularly prescriptive.

# Higher National Graded Units

## Titles/levels of HN Graded Units verified

DP8G 34: Computer Games Development: Graded Unit 1  
DG0H 35: Computer Networking and Internet Technology: Graded Unit 2  
DG0J 34: Computer Networking: Graded Unit 1  
DH36 34: Computing: Graded Unit 1  
DN4N 35: Computing: Software Development: Graded Unit 2  
DN4P 35 Computing: Technical Support: Graded Unit 2  
DV6D 34: Information Technology: Graded Unit 1  
F0NA 35: Information Technology: Graded Unit 2  
F21G 34: Interactive Media: Graded Unit 1  
DE36 34: Interactive Multimedia Creation: Graded Unit 1  
DE37 35: Interactive Multimedia Creation: Graded Unit 2  
DF6G 35: Multimedia Computing: Graded Unit 2  
DF6E 34: Multimedia Computing: Web Development: Graded Unit 1  
DF6F 35: Multimedia Computing: Web Development: Graded Unit 2

## Feedback to centres

### General comments

There were 13 visits to centres during the session which looked at 24 project-based Graded Units. This compares to 17 visits and 19 Units last session. There were two centres and four Units held. Central verification activity brought in a total of 15 Units from 11 centres. This compares to 17 Units and 17 centres last session. Only one centre was put on hold, which was quickly resolved without requiring candidates to re-sit.

Once again the central verification event which looked at the examination-based HN Graded Units, was overall very successful, with only one of the centres chosen for sampling being 'Not Accepted' (on hold). The judgement of candidate performance by assessors was generally in line with the standard required and there were only a few candidates presented whose marks required adjustment and grades changed. Otherwise any disagreements were within acceptable boundaries. This showed a continuous improvement over the last four years. Presentation of materials was good, only a few centres had incorrectly completed submission forms. Almost all centres used the published SQA exemplars. Where a centre had used/constructed its own paper these had been prior verified. It was also useful to note that any assumptions made about the exemplars had been included in the documentation supplied. This is most helpful when carrying out the process.

There was evidence of internal verification in the form of double marking in a majority of submissions. This is to be encouraged. One major point to note is that in a few of the submissions, there was a lack of clarity in identifying where and why marks were awarded on candidate responses by centres.

For examination-based Graded Units, the centres had included sufficient documentation to support the candidates' submissions — copies of the examination paper plus multiple choice/response answer grid (Section 1) and extended response solutions (Section 2). Form VS00 was completed and a full list of candidates with grades supplied. Overall there was agreement with centres' judgements of candidate performance and marks awarded. It is considered that progress is continuing in this area and these are to a satisfactory level.

The visiting verification took place mainly in June and July. Verification on projects can take place when the planning and developing stages had been completed and preliminary marks awarded. Centres were now aware of this change and many assessors had now seen SQA's *Guideline on Assessing Graded Units* (published in April 2008) and were taking notice of it.

The project-based Units were almost all accepted, with only two centres being 'Not Accepted' and holds being placed.

Interviews with candidates showed that a majority of centres were operating an effective induction process on the Graded Units and those candidates were aware of what they needed to do to achieve the different grades.

As mentioned in last session's report, in general, the technical content of the Graded Units was considered to be appropriate, acceptable and in most cases well done. However there was still some evidence of lack of clarity in marking candidates' work, with few annotations or comments to provide information and feedback as to where and why marks were awarded, in more than a few cases.

Several development visits which took place during the session were focused on the Graded Units and the feedback from participating centres was that these had proved most useful and had helped prepare staff for subsequent external verification visits.

There was prior verification activity on instruments of assessment for the project-based Graded Units, which again proved most useful when visits were taking place, both for centre staff and the External Verifier.

Direct contact and discussion with assessors was required in some Units, particularly those with no detailed marking scheme, to ascertain what potential grades candidates would be awarded and the assessor's rationale for grading. The outcome of these discussions would be an agreement on the interpretation and application of grading statements.

Candidate materials were reviewed to check the application of marking system/schemes and establish the method of grading. It was agreed that candidates showed a grasp of requirements and demonstrated skills at an appropriate level to potential grades awarded.

Centres are, overall, to be commended for the professional way in which assessment has been managed for the Units that are externally verified. However, in a few cases, requirements for visits had not been communicated/cascaded to individual assessors and internal verifiers.

## **Advice on good practice and areas for further development**

The following items were identified by External Verifiers and reported on as good practice:

- ◆ The centre has expanded the marking scheme to clearly identify where individual marks are allocated. Clear guidelines are given to assessors and internal verifiers for each section of the project.
- ◆ Comments are applied by the assessor to a weekly delivery schedule. These were candid and provided a good summary of how well candidates were coping with the Graded Unit. This will help plan the Unit more effectively for the next delivery.
- ◆ All candidates were given individual project assignments based on real clients and businesses. This provides for good practical experience in information gathering and real-life problem solving.
- ◆ Candidates had completed their diaries as web logs. This proved very effective as candidates tended to provide more information than in a paper based log.
- ◆ Double marking was apparent across all candidates (examination). This is good evidence of internal verification activity.
- ◆ Project templates provided to candidates and other candidate instructions were particularly well developed. These help ensure that candidates cover all necessary requirements.
- ◆ Each item in the marking scheme checklist for the Interactive Multimedia Computing Graded Unit contained 'examples of content' which provided points to look for when awarding marks. In addition, a highly detailed set of 'examples of content' had been developed for use in the implementation phase in the form of a grid. This helps to ensure consistency across different assessors.
- ◆ There were detailed comments on the marking scheme checklist to provide indications (and a rationale) of why and where marks were awarded/lost.
- ◆ Positive feedback comments to candidates were particularly detailed, both in general and for remediation purposes. These were noted on Progress Update forms and on candidate scripts. They provide a good level of support for candidates.
- ◆ Candidates' use of logs and peer review, formed a basis for the evaluating stage of the project.
- ◆ The integration of transferable skills and knowledge was demonstrated.

The following items were identified by External Verifiers and reported on as areas for further development:

- ◆ Internal verification activities had not been applied, eg lack of indication of double marking, lack of clear marking on scripts, resolution of disagreements and follow-through actions.
- ◆ Assessors must clearly indicate in candidate evidence where marks are awarded and how many marks are awarded for each section/element. This would also provide feedback for candidates and verifiers.
- ◆ All marking should be double checked on all material and records before final grading submissions.
- ◆ The centre may wish to consider providing a report template in the candidate guide that is given to candidates at the start of the Unit.
- ◆ Greater use of pro formas for candidates would help elicit appropriate responses at the point of requirement and standardise presentation of evidence.

- ◆ Care must be taken to ensure that candidates meet all of the minimum Evidence Requirements of the Unit specification.
- ◆ The Graded Unit should be an example of a standalone project — not cross-referencing evidence from other previously marked individual Units.
- ◆ Checklists could be amended to incorporate appropriate statements/indicators of level/marks awarded, to specify how judgements are made for the award of grades. Basic assessment records only show presence — there is a need to highlight gradings.



# SVQ awards

## Titles/levels of SVQ awards verified

G7JF 21	IT User — level 1
G7JG 22	IT User — level 2
G7JH 23	IT User — level 3
G7P4 22	Computing: IT Practitioner — level 2
G7P5 23	Computing: IT Professional — level 3

## Feedback to centres

### General comments

The number of visits undertaken was similar to last session. Seven reports were submitted from 17 centres identified for sampling. As outlined in the previous report, centres continue to demonstrate good practices and all awards and Units sampled were to an acceptable level.

Centres continue to employ suitable robust assessment practices. The tasks based on real work were being set at appropriate levels of complexity and scope for the Units undertaken. Internal verification systems and processes were well designed to meet the needs of both awarding body and sector skills council. These were being implemented well by centres. A high level of assessment planning was taking place.

The construction of portfolios continues to be improved; there is greater use of online storage and links to evidence. Clear indexing is being applied within individual portfolios. Candidate evidence was, in general, well laid out and easy to follow. There is further evidence of increased use of electronic portfolio generation and recording software.

There was also clear evidence of the internal verification procedures taking place, suitably recorded and backed up by printed schedules of activity. Staff within centres were knowledgeable about the individual awards and kept up to date by reference to the e-skills SSC website.

Interviews with candidates showed that they were well supported and most had a choice in the component Units of their individual awards. They were overall very satisfied with the awards undertaken and were kept well aware of their progress and feedback received from assessors on their performance.

All necessary documentation for visits was made available and overall arrangements were satisfactory.

Assessment strategy was complied with very well. There was a good range of evidence types and real work tasks undertaken.

## Advice on good practice and areas for further development

The following items were identified by External Verifiers and reported on as good practice:

- ◆ Use of e-portfolios
- ◆ Use of VLEs for recording evidence
- ◆ Good standardisation arrangements
- ◆ Supportive feedback
- ◆ Very good cross-referencing of evidence
- ◆ Very thorough internal verification activity
- ◆ Clearly meeting SSC (e-skills) assessment strategy
- ◆ Observation reports contained a high level of detail — particularly good use was made of witness testimony (professional discussion) within the mandatory Unit, which was well written and signed by all parties
- ◆ There was a good range of types of evidence in use, including: observation records, candidate statement, witness testimony, screenshots and printouts. Knowledge and understanding were incorporated in work-based assessment visit reports and observation records where appropriate.
- ◆ Good use of work logs to capture candidates' statements.
- ◆ Some screenshots were suitably annotated — this is recommended practice, eg processes to enhance images show steps undertaken and interim results.
- ◆ The content of candidates' folios was appropriate and in good order, eg use of screenshots which were annotated and sometimes multiple per page, improves the methods of demonstrating evidence of activities undertaken. Good use of photographic evidence to show context of workplace and indication of what tasks involved, eg room layouts, equipment: base units and drive installations — before and after.
- ◆ Tasks were being achieved at appropriate levels and complexity for level 2 and 3 awards.
- ◆ Detailed internal verification system, with feedback containing: standardisation checklist, checks on assessment methods used, compliance with strategy, specific feedback and suggested actions, corrective action required, review/follow through procures on action required as an iterative process, use of a red flag method to indicate areas with review dates set, summary of findings and general feedback with comments. One-to-one meetings were formalised to discuss reports. The procedures were well thought out and implemented.
- ◆ Positive feedback, within general comments was noted from IV to assessor.

The following items were identified by External Verifiers and reported on as areas for further development:

- ◆ Although a slight improvement from last visit, it is felt that there was still a limited range of types of evidence in use, mainly candidate statements and screenshots, although in some Units these were useful in providing 'before' and 'after' evidence.
- ◆ Centres should review their CPD activity for assessors to ensure they are up to date with technologies and offer additional opportunities to undertake enhancement of skills and knowledge.
- ◆ In a number of items sampled it was advised that there was a lack of sufficient number of items of evidence to cover all criteria.

# National Units

Freestanding Units which contribute to NPAs or NCs.

## Titles/levels of HN National Units verified

### **G8H7 44 — PC Passport: Beginner at SCQF level 4 (3.0 credits)**

F1F9 10 PC Passport: Introduction to the Internet and Online Communications (1.0 credit)

F1F8 10 PC Passport: Introduction to IT Software and Presenting Information (1.0 credit)

F1GP 10 PC Passport: Introduction to IT Systems (1.0 credit)

### **G8H9 45 — PC Passport: Intermediate at SCQF level 5 (3.5 credits)**

F1FD 11 PC Passport: Internet and Online Communications (1.0 credit)

F1FB 11 PC Passport: Spreadsheet and Database (1.0 credit)

F1FC 11 PC Passport: Word Processing and Presenting Information (1.0 credit)

F1FA 11 PC Passport: IT Systems (0.5 credit)

### **G8HA 46 — PC Passport: Advanced at SCQF level 6 (4.0 credits)**

F1FF 12 PC Passport: Working with Internet and Online Communications (1.0 credit)

F1FJ 12 PC Passport: Working with IT Software: Spreadsheet and Database (1.0 credit)

F1FE 12 PC Passport: Working with IT Software: Word Processing and Presenting Information (1.0 credit)

F1FH 12 PC Passport: Working with IT Security for Users (0.5 credit)

F1FG 12 PC Passport: Working with Artwork and Imaging (0.5 credit)

## Feedback to centres

### **General comments**

A total of 41 visits were undertaken for PC Passport between March and May 2009 across a range of centres including schools, colleges and private training providers.

No major difficulties were experienced in organising visits with centres. SQA Co-ordinators were made aware of intended visits by letter followed up normally by e-mail contact from External Verifiers to arrange the most convenient time to meet with centre staff and view suitable level of activity. Visit arrangements were overall satisfactory and, in most cases, very well organised.

It was identified that some form of internal verification systems were in place within centres but, in more than a few, there is a lack of clear understanding of what internal verification is meant to be doing, but it was carried out in some fashion in almost all cases. This was normally by double or cross marking. Some examples of internal verification systems, however, were well designed with a suitable strategy, fully documented and very well implemented.

All centres were using the nationally devised assessment support packs (ASPs).

The visits conducted indicate that there is a clear perception of a National Standard which is being maintained. No 'Not Accepted' forms (holds) were issued, although three centres were considered as 'borderline' being at a minimum acceptable level, appropriately noted in reports and fed back to centre staff.

Standards of evidence: There was some confusion about arrangements for marking where multiple choice question tests assess across more than one Outcome — involving the use of cutting scores/thresholds within cutting scores on MCQ tests. (Following advice from SQA, the guidance is that these are not necessary and the overall initial total threshold score should apply.)

Reasons for candidates to fill in records of their actions when carrying out tasks on some checklists were not fully understood. (It is advised that these are required to meet sector skills council mandatory ITQ Unit requirements, for equivalence). These points should be highlighted in the revised versions of the ASPs.

It was also noted that under the new Unit structure there was no longer automatic compensation from a higher level Unit to a lower one. Standard credit transfer rules would have to apply instead, which depend on similar knowledge and skills subject areas in both Units. Therefore, for example, assessments from an Intermediate level Unit would have to be mapped back to the beginner level Unit.

Some general advice given to centres was that if a task set in an assessment support pack cannot be achieved exactly due to technical/security considerations, eg firewall settings, then an equivalent task can be utilised, provided this is documented. Set questions (eg MCQs) may also be altered to suit particular operating environments, technological changes and interpretations, provided these remain in the context of the original Unit specification and are documented. Where technical problems have arisen which affect evidence, then these should be noted by the candidate and initialled by the assessor.

Candidates' work as presented was generally to a high standard, there was agreement overall with assessors' judgements of candidate performance.

## **Advice on good practice and areas for further development**

The following items were identified by External Verifiers and reported on as good practice:

- ◆ The assessment/internal verification sampling log showed clearly which candidate assessment materials had been selected for internal verification and any actions required.
- ◆ The team operates a multi-level approach to teaching with the candidates being given the opportunity to be assessed at whichever level they are able to achieve. This is very motivating for the students, who are aware that there is no barrier to progression.
- ◆ The centre is very aware of plagiarism and provides every candidate with a copy of SQA's statement on plagiarism. This is discussed fully with the candidates before they undertake the award.
- ◆ There was positive feedback to candidates within assessor comments regarding the quality of work presented. This also provides encouragement to candidates.

- ◆ The assessor and internal verifier meet weekly as this is a new award. All materials completed had been internally verified.
- ◆ Tasks were cross referenced in a comprehensive centre devised checklist which shows where the candidate has carried out the full range of elements detailed in the Unit specification.
- ◆ The assessor has designed exercises to help learners reflect on their own learning as well as carry out the practical tasks. These extremely well designed exercises provide a platform whereby the candidate can be confident in undertaking the ASP and also provides the assessor with formative feedback, thus ensuring the pupils are ready to sit the ASP and achieve.
- ◆ Documentation overall was in good order, clear and easy to follow, with marking schemes and assessment progress tracking sheets maintained for all candidates within each Unit, showing each candidate's results applied against individual tasks/assessments.
- ◆ Candidate scripts had been annotated to cross reference to task which is particularly useful for tracking purposes.
- ◆ Clarity of marking worthy of note — easy to see where and why marks were awarded and/or remediation had taken place. Marking was entirely consistent throughout.
- ◆ Internal verification system was in place. Assessment instrument had gone through a thorough IV check with IV Report completed, dated and signed. The internal verification process is carried out by cross checking/marking a sample of candidates' responses according to centre's sampling strategy.
- ◆ Internal verification system was in place within the department, with provision for actions and follow through; records were completed, signed and dated. The internal verification process is carried out by cross-checking/marking a sample of candidates' responses. Internal verification activity was noted on candidate scripts and checklists by initialling in green ink.
- ◆ The candidates had access to a useful, tailored, variety of learning materials including award/course textbooks. Suitable access to assessment arrangements were in place.
- ◆ F1F8 10 PC Passport: Introduction to IT Software and Presenting Information — Candidates had appropriate level of completion of comments/reasons for choice — use boxes on forms.
- ◆ F1GP 10 PC Passport: Introduction to IT Systems — Good use of screen shots to demonstrate tasks undertaken and sufficient commentary in candidates' descriptions of tasks.

The following items were identified by External Verifiers and reported on as areas for further development:

- ◆ The establishment of formal documented internal verification systems within all centres.
- ◆ The assessors should consider a consistent method of filing assessments to facilitate both internal and external verification.
- ◆ Every assessor (teacher) checklist should be completed as well as candidate evidence being available.
- ◆ The Internal Verification log would benefit from another column which would allow the recording of the completion of any remedial action taken as a result of verification.
- ◆ Some items of candidate evidence were not appropriately labelled for identification and tracking — eg name printed as footer/written on all documents.