Higher National and Scottish Vocational Qualifications
Internal Assessment Report 2012

Computing

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

Overall, feedback from external verification / new QA qualification verification visits by the Computing team indicates that most staff within centres have a reasonable, but not yet a clear and accurate, understanding of the national standards requirements.

In most cases, the standard of candidate evidence was acceptable and assessors were marking and making judgements to an appropriate standard for the Units sampled.

There were several occasions where candidates were being set tasks which were considered excessive, when judged against the standard criteria. In only a few centres visited were standards considered not to be met.

Unit specifications, instruments of assessment and exemplification materials

Overall, comments within reports on standards being implemented by centres to meet the Evidence Requirements, knowledge and skills values and Outcomes were satisfactory.

Most assessors demonstrated a basic working knowledge in the application of Unit specifications. However, there were several instances of incorrect interpretation of Unit specifications leading to preparation of invalid assessment instruments which could not ensure that all candidates were meeting national standards.

Application of marking schemes within instruments of assessment, with direct cross references to Unit Evidence Requirements to ensure full and appropriate coverage of these, was also lacking in more than a few cases for Units seen. This indicates that there could be a lack of familiarity with Unit specifications.

Evidence Requirements

Feedback from External Verifiers still suggests that, in some centres, not all assessors are following assessment practices and interpretation of Unit specifications, including, in particular, the need to adhere to Evidence Requirements.

There were a number of areas for concern which mainly related to interpretation of Evidence Requirements found during external verification activity. For example, some centres did not have clear marking guidelines regarding the minimum detail required in candidate scripts/exercises/practical logs.

Usually however, examination of candidate evidence showed that candidate performance was being accepted at an appropriate level. However, it still raises issues around how consistency between assessors is assured.

Administration of assessments

From the EV8 reports, it appears that internal verification systems within the centres sampled are well constructed, have appropriate strategies and are very well documented.

In most, but not all, centres IV systems are being carried out effectively.

There were, however, more than a few instances where internal verification activity had not been carried out at the time of the visits. It was seen to be a process carried out once all candidates had completed the Units and at set times within the year, rather than as a continuous process.

Where internal verification activity had taken place, there was evidence of both second marking and internal verification. This was clear and systematic in most of the Units verified. This can only benefit the processes of internal and external verification, providing good feedback to the assessor and, ultimately, the candidate.

The presentation of candidate materials and centre master packs were overall considered to be in very good order, well documented and structured. It was good to see that most centres are now holding these online, some with hyperlinks to access required forms etc.

General feedback

The feedback to candidates was generally good, including some instances of positive encouragement, although in many centres there was still a lack of formal written comments/statements on their status and progress.

Candidates interviewed were very positive about the level and quality of support and guidance provided by their centres. They were generally happy about the nature and content of their chosen course/award. They were also fairly clear about the methods of assessment used, but not always clear about the rationale behind assessors' judgments.

Access to assessment was well covered in all centres visited. Typically, any candidate with additional support needs or a disability would be referred through their centre's support for learning department and suitable accessibility arrangements made, eg use of scribes additional hardware, software, etc.

Within the pilot new QA procedures, the criterion that 'The centre must provide evidence to demonstrate a commitment to equal opportunities in relation to selection, induction, guidance, support and assessment of candidates' was clearly evident in the policies and procedures, information on the student intranet and instruments of assessment. All candidates would undertake a Core Skills assessment to identify any additional support needs. Candidates who require

extended learning support are referred to a specialist learning support department.

Areas of good practice

The following areas were identified from the EV/QV reports:

♦ All assessors and Internal Verifiers undertake an induction programme when they begin their employment at the centre. Relevant information is also specified in the procedures and guidelines for internal verification and assessment. All this information is available on the staff intranet. Staff development workshops are carried out at the start of the session during the centre's in-house conference.

♦ Assessment packages included: pre-delivery checklists; Unit specifications; assessment instruments; internal verification sampling records; learning, teaching and assessment plans; and learning and teaching materials.

♦ The integration of assessment for four different Units around the topic of Software Development for Web Applications was beneficial in that students did not have to duplicate huge amounts of work. It also highlighted how the Units tie in together, as would happen in a work situation, giving a wider concept. This type of integration is to be encouraged in other technical areas.

♦ The centre holds an annual staff conference and IT workshops at the start of each session, which are used to disseminate examples of good practice for assessments in other subject areas of the centre. These can provide the basis for adopting different approaches within Computing.

Specific areas for improvement

♦ Centres were not always including the incorrect rejected marked candidate evidence alongside the subsequent remediated attempts and this made it hard to demonstrate candidate progress and boundaries of assessor judgement.

♦ Candidate evidence scripts were not always clearly presented. In some cases, there was little or no annotation on candidate scripts to give feedback, or show what was being accepted, and scripts were not cross-referenced to other Unit, Outcome or candidate documentation.

♦ In some cases, there was no clear mapping of assignments to Outcomes or Evidence Requirements or knowledge and skills values. Clearer 'labelling' of Evidence Requirements being met on each assessment would have aided the external (and internal) verification process.

Higher National Graded Units

Titles/levels of HN Graded Units verified:

DG0J 34 Computer Networking: Graded Unit 1 SCQF Level 7
DP8G 34 Computer Games Development Graded Unit 1 SCQF Level 7
DH36 34 Computing: Graded Unit 1 (Exam) SCQF Level 7
DV6D 34 Information Technology: Graded Unit 1(Exam) SCQF Level 7
DN4N 35 Computing: Software Development: Graded Unit 2 SCQF Level 8
DN4P 35 Computing: Technical Support: Graded Unit 2 SCQF Level 8
DG0H 35 Computer Networking and Internet Technology: Graded Unit 2 SCQF Level 8

General comments

The central verification event, which looked at examination-based HN Graded Units, was overall fairly successful. However, the quality of assessor marking and internal verification was certainly not as good as last session and there was a reversal of the trend towards improvement which had been shown over previous years.

The judgement of candidate performance by assessors was mostly in line with the standard required, although there were more candidates presented this year whose marks required adjustment and grades changed. Otherwise, any disagreements were within acceptable boundaries.

Presentation of materials and content was rather poor, with many required documents not supplied or, of those that were, incomplete.

The project-based Unit visiting verification took place mainly in late May and June. Verification on projects can take place when the planning and developing stages have been completed and preliminary marks awarded.

The project-based units seen indicated, in most cases, that there was a reasonably accurate understanding of the national standards. Again only a few centres were 'Not Accepted' (held).

Unit specifications, instruments of assessment and exemplification materials

In the examination-based Units, almost all centres were using the SQA published exemplars as their instruments of assessment. On a few occasions, it was apparent that the selected versions had not been fully checked out by the assessor and Internal Verifier, prior to candidates undertaking them, to ensure that candidates were able to cover the full scope from the instruments of assessment (examination paper).

Prior verification activity had taken place on most instruments of assessment for the project-based Graded Units. This helps to ensure familiarity and proved most useful when visits were taking place, both for centre staff and the External Verifier.

Most used the SQA exemplar for assessments or their own centre-devised assessment, based on exemplars.

Evidence Requirements

In project-based Graded Units, in general the technical content of the candidates work was considered to be appropriate, acceptable and in most cases well done. However, in more than a few cases, there was some evidence of a 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.

Direct contact and discussion with assessors was required in some Units, where no detailed marking scheme had been provided, 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 interpretation and application of grading statements and minimum Evidence Requirements.

Review of candidate materials presented to check application of marking system/schemes and establish method of grading took place. It was agreed that, overall, candidates were showing a good grasp of requirements and demonstrated skills at an appropriate level to potential grades awarded. This indicated that most assessors had a good understanding of the Evidence Requirements.

Administration of assessments

The central verification event indicated that the judgment of candidate performance by assessors was generally in line with the standard required. Almost all centres were using the published SQA exemplars.

Presentation of materials had showed a continuous improvement over the years. However, this session it was not good: only a few centres had correctly completed submission forms. It was also noted that few centres had made any assumptions about the exemplars included in the documentation supplied. The inclusion of such deliberations and quantification of assessor judgements would be most helpful when carrying out the central verification process and save further communication with submitting centres to clarify issues.

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

Most project-based Units seen had not yet been subject to internal verification procedures as visits took place on completion of the first two stages. However, there were certain indications that where this had been undertaken it helped to clarify the candidate's position when moving through the stages.

General feedback

In a few centres, positive feedback comments to candidates were particularly detailed, both in general and for remediation purposes. These were noted on progress forms and on candidate scripts. They provide a good level of support for candidates.

In particular, in project-based Graded Units, eg Computer Games and Software Development, candidates demonstrated the games/software application they had developed to the External Verifier. This was again a most positive aspect of these visits and allowed the EV to judge the standards directly and discuss all aspects of the Unit and award with groups of candidates. A wide range of programming skills was demonstrated and each candidate was keen to demonstrate their project to the full. This activity is to be encouraged for future visits.

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

In most centres, candidates' responses indicated that staff were enthusiastic and supported their students in an appropriate way when delivering these Graded Units. Comments relating to the positive use of external clients were mentioned, with students indicating that 'It brought everything together'. It became apparent that almost all candidates interviewed were extremely positive in relation to the assessors and the support/feedback they provide.

Areas of good practice

1. For one centre which had been selected for central verification of examination-based Graded Units, the following comments were made in their report:

The additional internal verification form supplied had a grid covering all questions for each candidate. The form was well laid out, incorporating the assessor's rationale for marks awarded and agreements/disagreements of the second marker, and then checked by the Internal Verifier. Any disagreements with the assessor were clearly noted, with justifications. All forms seen were suitably completed. There was also clear evidence of IV activity on candidate scripts, including use of different coloured inks by the assessor, second marker and Internal Verifier.

A list of all candidates was supplied containing their grade results. A sample of 12 candidates' papers was supplied, covering a range of grades.

Section 1 (multiple choice): this had been assessed and mostly marked correctly. Discrepancies had been accurately picked up internally and altered, thereby showing effective IV practice. Totals were shown on the answer grid.

Section 2 (extended response): candidate responses to questions had been assessed correctly according to the marking scheme, at an appropriate standard. Scripts were clearly marked with a tick per mark (both for first and second markers); totals for each question or sub-question were shown in the margins. The assessor had provided feedback comments, which are useful for external verification purposes and form useful instructive comments for the rationale of awarding marks.

The centre submission was very well constructed and provided a high level of detail which greatly helps the central verification process. This is to be commended.

2. For a project-based Graded Unit visit to a centre, the following points were identified in discussions with assessors, Internal Verifiers and curriculum managers and considered to be examples of good practise:

♦ Assessors take part in standardisation activities in partnership with other sectors within a college. The college has a well documented set of policies on assessment and internal verification: all Graded Units are subject to sampling and independent blind double marking. Conflicts in double marking are resolved through mediation by senior staff who also act as Internal Verifiers.
♦ Each candidate received comprehensive and positive feedback for each stage of the project. By sending this information electronically, no student was omitted from the process.
♦ The use of video evidence for DN4P 35 effectively illustrates the appropriate use of ICT for generating summative evidence.
♦ The use of external clients: when interviewing candidates undertaking DN4N 35, at least 80% had sourced and completed projects for local employers.
♦ Effective methods of combating plagiarism: the use of software such as JISC Turnitin and the development of individual project scenarios (14 have been developed for DN4P 35) are effective tools in combating this problem.

Specific areas for improvement
1. Examination-based Graded Units:
Centres should review all questions systematically prior to delivery and record this on an internal verification form. If they have done an internal verification check on the exemplar then that should be sent. Any assumptions made and deviation from the exemplar should be documented and supplied.

It is strongly recommended that centres take note of the SQA publication *Guidance for the Implementation of Graded Units* (publication code CA4405), particularly the sections on examination procedures and marking, and that they follow this guidance.

A major issue at CV this year was that not all requested documents were sent with scripts and the process could not continue until these were received.

There were instances where internal verification activities had not been applied. This included lack of the following: indications of double marking, clear indications on scripts, resolution of disagreements, and follow-through actions.

Assessors must clearly indicate in candidate evidence where marks are awarded and how many for each section/element. This would also provide a basis for feedback to candidates and verifiers.

Marking scores should be double checked on all materials and records before final grading submissions.

2: Project-based Graded Units:
The Graded Unit should be an example of a stand-alone project. It should not cross-reference evidence from other previously marked individual Units.

Direct discussion with assessors was required in some Units in order to ascertain what potential grades candidates would be awarded and the assessor's rationale for grading. Centres must supply reasonably detailed marking schemes or guidelines, eg checklists incorporating appropriate statements / indicators of level / marks awarded, in order to specify how judgements are made for the specific award of grades. This enables the demonstration of a centre's acceptable standards, and how they ensure consistency between different assessors and verifiers.

SVQ awards

General comments

Centres seen seemed fully aware of the national occupational standards and the assessment strategy as stated by the Sector Skills Council and were generally complying well. Points being followed were, for example, real work for mandatory Units, CPD for award, good range of evidence types, etc.

Although some centres were delivering the new SVQs for IT users, the SVQ for IT professionals had an increase in candidates this session. Centres seen running these new awards had quickly grasped the new requirements and standards and were applying them appropriately.

Unit specifications, instruments of assessment and exemplification materials

Overall, assessors were very familiar and in most cases very knowledgeable about the Unit specifications and related portfolios, the national occupational standards and SQA supporting documentation/publications, such as SQA's assessment guidelines. Most kept in touch with SQA for updates on developments.

Evidence Requirements

All indications from visit reports are that assessors and Internal Verifiers are quite clear about the Evidence Requirements for the awards.

Centres were generally using standard SQA portfolio sheets, some of which were being maintained online by the assessor, with hyperlinks to evidence contained in candidates' disk folders. These were being completed correctly and were all in order.

There was a continued use by many centres of e-portfolio systems which contained the national occupational standards or SQA portfolio sheets, thus restating the Evidence Requirements and helping to ensure adequate coverage. Use of the e-portfolio facilities was very good.

There was a good range of types of evidence types in use, including observation records, candidate statement, screenshots and printouts. Knowledge and understanding were incorporated where appropriate and were recorded.

Administration of assessments

Centres were mostly using standard SQA portfolio sheets, which were either electronic or paper-based. These were being completed correctly and were all in order.

Tasks were undertaken in appropriate circumstances, including the use of industry standard software and hardware. 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 SQA as the awarding body and the Sector Skills Council. These were being implemented well by centres. Rules for the mandatory Units were followed.

Overall, assessors' judgements of candidate performance were agreed with. There are clear indications that candidates were achieving tasks at an appropriate level.

Centres continue to employ suitable robust assessment practices. A high level of assessment planning was taking place.

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 Sector Skills Council (e-skills UK) website.

General feedback

Feedback to candidates was generally good. E-mail contact prior to regular visits by assessors provides opportunities to highlight any issues which can then be discussed during the visit. Candidates will normally discuss with the assessor when they are ready to undertake assessments and negotiate actual times.

Candidates interviewed were very aware of the centre's activities concerning them and particularly praised the level of personal support given to them by the centre staff. All seemed clear about the nature and needs of the awards undertaken. They were also well informed about the structure of the award and credit points, etc.

Interviews with candidates also showed that they had a choice in the component Units of their individual award. 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

Regarding access to assessment, normally candidates are interviewed prior to starting the award and any additional support needs identified. Where needs are identified and other resources are required, centres will liaise with employers to provide accessibility tools and additional support.

Most centres also had procedures for additional support needs and disabilities. Following identification of candidates' needs, centres will provide appropriate facilities. Assessments take place by arrangement with assessors when opportunities arise, including during work placements. There were examples of weekly catch-up and discussion sessions.

There was a good range of types of evidence in use, including observation records, candidate statements, witness testimony, screenshots and printouts.

There was useful commentary on evidence portfolios, providing direct and clear feedback to candidates on any additional requirements to be met.

The construction of portfolios continues to be good: there is continued 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.

Generally, detailed assessment visit records were in use, signed by the candidate, assessor and supervisor. These showed Units covered, method of assessment, feedback, ongoing assessment plan, health and safety monitoring report, appeals and grievances.

Areas of good practice

Observation reports had a high level of detail. Particularly good use was made of witness testimony (professional discussion) within the Unit. These were 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.

Assessments involved both products and candidate 'documentaries' which describe in great detail how the products were developed.

Good use of screenshots as evidence, suitably annotated, is a recommended practice. This is in effect a 'storyboard' approach: screenshots had dialog boxes to show steps undertaken, before and after, with candidate explanations on these steps.

Specific areas for improvement

Centres should review their CPD activity for assessors and Internal Verifiers to ensure that they are up to date with current technical IT practices and products. These CPD events should be formally recorded.

Although not strictly speaking an area for improvement, centres should note that the use of witness testimony need not only be for 'expert' witnesses. Where a candidate has performed an IT-related piece of work, or provided a service, then this can be acknowledged by the person for whom the product/service was provided. This could be a statement (e-mail) from a user acknowledging that they are satisfied with the job the candidate has carried out. It may be from the candidate's manager, colleague or client. Services such as technical repairs, network server installations, software upgrade deployments etc would require a technically competent witness with their details held on a register.