



**Higher National and Vocational Qualifications
Internal Assessment Report 2015
Computer Science**

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

In all centres visited, following scrutiny of a wide range of evidence presented and discussions between External Verifiers (EVs) and centre staff, assessors and internal verifiers we found that:

- ◆ The evidence seen against the quality assurance criteria was considered to be sufficient.
- ◆ Internal assessment activities were consistent with documented centre procedures and in line with SQA requirements.
- ◆ Assessors were marking and making judgements to appropriate and acceptable standards for the Units sampled.
- ◆ Suitable assessment systems were in place and being implemented.

The EV team is pleased to report that the centres have been able to demonstrate a clear and accurate understanding of the requirements of the national standards within this subject area.

Unit specifications, instruments of assessment and exemplification materials

Through visits to centres and prior verification activity during the session, the EV team reported that centres have a good general understanding of the Unit specifications.

Assessors are in general, aware of the detail of Unit specifications and are familiar with SQA exemplar and assessment support pack materials.

In most centres the most recently published exemplars are used as models for assessment and contextualised to the particular technical subject area being undertaken (eg programming language and software development methodology).

The instruments of assessment seen were valid and reliable — assessments were a mixture of online assessments (eg on VLE, SOLAR), modified assessment exemplars/ASPs and centre-devised assessments.

Evidence Requirements

Evidence Requirements for the HN Computer Science Units are generally well understood.

Assessment tasks set are relevant and well designed to challenge candidates at an appropriate level.

Assessments were in many cases contextualised and in keeping with current industry/professional practice.

Assessment where practical, is linked to, or integrated with, work across Units, eg systems development, programming and testing.

The supporting documentation seen, eg marking schemes and checklists, indicated that there would be sufficient coverage and checking of all Evidence Requirements.

Administration of assessments

The quality assurance criteria approach is now adopted by centres. This requires us to check that centre assessment and internal verification procedures are being implemented effectively.

We found during visits that most centres had robust and well documented assessment and internal verification procedures, which provide a clear and accessible audit trail through the assessment and internal verification processes.

We also recognised that some centres are undergoing major organisation structural changes. Here, through discussion and observation of systems, we considered that there was sufficient evidence that the criteria were being met.

Materials presented for external verification were, in the main, well organised, well presented and accessible for scrutiny.

General feedback

Ongoing learner development needs are usually identified through discussion with the assessor and followed up.

Access arrangements, additional support needs and disability requirements were met through centres' equality policies and clearly embedded in their systems procedures.

It was interesting to see a greater candidate involvement in resource review and provision, through staff–student liaison meetings. These also provided indications that students are overall satisfied with the support they receive in addressing development needs.

A growing practice is for students to be able to view their ongoing progress on the centre's VLE on a Unit-by-Unit basis, both for formative and summative assessments.

Formal feedback provided to candidates continues to be encouraging and supportive in all centres, with guidance given on any further development requirements.

However, in some centres we found that there is a great deal of verbal feedback, but little in the way of formal written feedback, even on Candidate Assessment Records where it would be expected.

There were of course some instances of clear, high quality constructive comments given to learners.

Overall, there was good evidence that candidates are being well prepared and supported for assessment across all Units.

Areas of good practice

Previous reports have commented on the good practice shown by centres. It is encouraging that external verification during 2014–15 confirmed that these continue. Good practice noted in EV reports during this session included:

- ◆ Where candidates had not achieved an assessment task at the first attempt, original attempts were retained and filed with the successful attempt. This is most useful in judging standards applied in being able to compare the unaccepted version to the accepted version.
- ◆ Where assessments had been provided electronically, eg word-processed reports, there was good use of comments by the assessor in the document review comment boxes, to provide feedback to candidates — particularly when indicating where they have failed to meet requirements and require remediation. This is useful both for internal and External Verifiers to judge what the assessor's acceptance standard is.

Specific areas for improvement

The following summarises some of the recommendations or suggestions that were made as a result of external verification during 2014–15. They may not apply to all centres but may provide scope for reflection on current practice. The main developments suggested were:

- ◆ Although feedback sheets were good, we recommend that actual marks or comments are annotated on the candidate scripts/folios. This would help to make it clear to see the point at which marking methods and standards are applied by the assessors.
- ◆ To enhance assessment, for Unit H173 34, Developing Software: Introduction, candidates can put in a front page with titles in their technical manual. (This item is added to illustrate that centres may enhance ASP/ exemplar materials.)

Higher National Graded Units

Titles/levels of HN Graded Units verified:

H48Y 35 Computer Science: Graded Unit 2

H4LF 35 Interactive Media: Graded Unit 2

H48W 35 Computing: Software Development: Graded Unit 2

F21G 34 Interactive Media Graded Unit 1

General comments

For the project-based Graded Units, sufficient evidence was presented, which indicated, that there was an accurate understanding of the national standards.

At the central verification event, we looked at marked candidate script evidence from centres presenting for the F21G 34 examination. The marking and grades awarded were all found to be in order and met the national standard.

Unit specifications, instruments of assessment and exemplification materials

There appears to be high familiarity with the Graded Unit 2 projects by assessors:

- ◆ Centres were assessing the Units using the correct method — project scenario.
- ◆ The assessors correctly provided the appropriate level of support to each candidate, ensuring that no unfair advantage was gained.
- ◆ Assessment instruments were in line with the stated Grade Related Criteria.
- ◆ The exemplars were used to provide a basis for their marking scheme.
- ◆ Appropriate sub-marking schemes had been developed and applied consistently across candidates sampled.

SQA exemplars were used for the F21G 34 examination Unit. Supporting documentation indicated that there had been appropriate standardisation activities prior to delivery.

Evidence Requirements

All evidence seen was marked accurately and consistently across the Units and to SQA required standards.

The marks awarded all reflected the standard of work produced and assessors' judgements of candidate performance were appropriate.

Assessor comments had been written on the candidate scripts to explain why marks were deducted.

Assessment checklists showed a detailed breakdown of where marks were awarded.

When verifying the project-based Units, we made checks on the application of the marking schemes to establish method of grading. We found that candidates demonstrated a good grasp of requirements and demonstrated knowledge and skills at an appropriate level to the grades awarded.

Overall, there were clear indications that most assessors had a good understanding of the Graded Unit Evidence Requirements.

Administration of assessments

In line with quality assurance criteria, we saw during visits that issues arising from internal verification fed into end-of-cycle review meetings and a final assessment panel, ensuring closure of the current session and forward planning into next session's cycle.

For central verification of the examination Unit, all required documents were submitted. These had been fully completed in line with requirements.

There was some evidence of double-marking taking place in addition to internal verification sampling.

There were some instances where the IV had disagreed with the initial marker and the resolution process to the final mark was clearly annotated/documentated. This is recommended and was pleasing to see.

General feedback

Candidates we interviewed said they are satisfied with the support provided.

Detailed and constructive feedback is being given to candidates.

The candidates all agreed that the project had extended their technical abilities and that it brought together various elements of the underpinning framework

They feel that they had taken ownership of their projects and have benefited from the projects, by building on new skills and knowledge.

They were extremely positive in relation to the assessors and the support/feedback they provide.

In particular, for project-based Graded Units, eg Interactive Media and Software Development, candidates demonstrated the websites/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.

The EV team agree this activity is to be encouraged during their visits.

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

Areas of good practice

Good practice noted in EV reports during this session included:

- ◆ The detailed feedback given to candidates was extremely useful for them. The documents and support they were given was very helpful to ensure they understood the standards required for the Graded Unit and how these differed from other Units. This helped to avoid remediation and enabled the potential for higher grades.
- ◆ Meeting with the candidates and watching them demonstrate their programs was great evidence that standards were being adhered to.
- ◆ The internal verification process is very well documented and both the assessor and internal verifier comments are instructive and accurate, providing very good positive feedback. The level of annotated work is such that all decisions were easily verified.
- ◆ The course structure had been modified to ensure that prerequisite Units were taught in natural sequence, culminating with the Graded Unit. This was discussed with the team and assessors who indicated that this was in response to candidate feedback.
- ◆ All assessments were double-marked and then internally verified. Marking is seen as a collaboration between the assessor, team and team supervisor to ensure consistency.
- ◆ The assessment material cover sheet for each candidate includes Unit details, candidate details, assessor name, internal verifier name, internal verifier recording of sampling with feedback if required, candidate signature and declaration of own work. It also contains: grade boundaries, remediation and re-sit policy, right to appeal against assessor decision and who to contact. This is a most useful approach to consolidating required information for verification.

Specific areas for improvement

There were no areas identified for the Graded Units in this subject group.

SVQ awards

G9WP 23 SVQ IT User Level 3

G9WR 22 SVQ It User Level 2

GG3W 46 Diploma for Information Technology & Telecommunications Professionals at SCQF level 6 (SVQ level 3)

General comments

Centres seemed fully aware of the National Occupational Standards (NOS) and the Assessment Strategy as stated by the Tech Partnership Sector Skills Council (SSC) and were generally complying very well for the qualifications verified.

The recently introduced Diploma for Information Technology & Telecommunications Professionals Award showed an increase in candidates this session, including uptake of the Software Development options.

We visited centres running these awards and found that they had spent a good deal of time in grasping the requirements and standards. There were considerable discussions between the centre staff and the EV, particularly on the acceptability of evidence. We were able to point to the availability of some SQA resources including assessment guides.

In general though, following scrutiny of candidates' portfolios and discussions with assessors/internal verifiers, we found that in all cases the centres were applying the national standards in line with requirements.

Unit specifications, instruments of assessment and exemplification materials

Overall, assessors were familiar with the SQA Unit specifications and related portfolios, the NOS and the supporting procedural documentation. There was a general lack of awareness about the availability of assessment guides and other level and assessment support materials.

Most centres kept in touch with SQA and the SSC (Tech Partnership UK), 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 IT User Awards.

For the Diploma for Information Technology & Telecommunications Professionals Qualification, the need to have discrete evidence for knowledge assessment criteria was perhaps less understood, but there was full detail on the skills criteria.

Some centres were using standard SQA/NOS derived portfolio sheets, some of which were being maintained online by the assessor with hyperlinks to evidence contained in candidates disk folder. This was sometimes a bespoke system developed from standard application software (eg SharePoint, OneNote). 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 NOS or SQA portfolio sheets, thus restating the Evidence Requirements and helping to ensure adequate coverage. Utilisation of the e-portfolio facilities was very well done.

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

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

Administration of assessments

All candidate portfolios were presented in very good order. Centres were mostly using standard SQA portfolio sheets 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 and the SSC. These were being implemented well by centres.

Rules for the mandatory Units were followed.

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 SSC, (e-skills UK) website.

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

General feedback

Feedback to candidates was generally very good. Regular visits by assessors and contact by e-mail prior to a visit 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:

- ◆ clear about the nature and needs of the awards undertaken
- ◆ well informed about the structure of the award and credit points
- ◆ clear that they had a choice of component Units for their individual award in relation to their job role
- ◆ overall very satisfied with the awards undertaken
- ◆ kept well aware of their progress and feedback received from assessors on their performance
- ◆ of the opinion that the award would be most useful for future employment and prospects
- ◆ very positive in their statements, about the whole working experience and the level and quality of support given to them throughout

Centres had procedures for additional support needs and disabilities. Following identification of the needs of candidates, centres will provide appropriate facilities. Assessments take place when opportunities arise, including in work placements, by arrangement with the assessor.

There was a good range of types of evidence in use, including observation records, candidate statement, witness testimony, screenshots and printouts. There was also useful commentary on evidence portfolios, providing direct and clear feedback to candidates on any additional requirements to be met.

Areas of good practice

- ◆ As part of the centre's quality assurance policy, all new assessor decisions are countersigned by an experienced mentor assessor, who possesses an assessor award.
- ◆ The assessor used a variety of assessment methods — observation, knowledge (question and answer), practical — supported by screen dumps and candidate statements, witness testimony etc. There was also evidence of standardisation meetings and in conjunction with CPD activity and staff development the assessor used his experience to ensure that the assessments undertaken by the candidate in the workplace were valid, reliable, equitable and fair.
- ◆ A list of observers and expert witnesses, with details of their job roles and positions is held in the digital portfolio system.

Specific areas for improvement

There were no specific areas identified for improvement.