



Internal Assessment Report 2010: Graphic Communication (33)

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

National Qualifications (NQ) Awards

Titles/levels of NQ Awards verified

Graphic Communication (Intermediate 1): Graphic Presentation Folio
Graphic Communication (Intermediate 2): Graphic Presentation Folio
Graphic Communication (Higher): Thematic Presentation
Graphic Communication (Advanced Higher): Computer-Aided Graphic Presentation and Computer-Aided 3D Modelling Presentation

General comments

The *Guidance on Assessment* documents are an essential part of the internal assessment process. It is therefore extremely important that teachers/lecturers are familiar with these documents. These documents can be found on the SQA website.

These are fine-tuned each year to take on board concerns raised by centres and issues that arise during verification. As a result they may contain changes from the previous year.

Following our discussions, the decision was made to change the breakdown of marks for section two of the Computer-Aided 3D Modelling Presentation at Advanced Higher, in order to achieve consistency with Higher level. This affects all candidates taking the Course in session 2010–11.

Centres should make use of the exemplar material on the SQA website.

Advanced Higher

The overall standard appeared similar to last year, with some outstanding pieces of work from some centres. However, there were still a number of non-accepted centres. This was due to a lack of familiarity with or misinterpretation of the assessment guidelines, or a lack of understanding of the correct standard.

Higher

The Understanding Standards events appeared to have had a positive effect on the application of the assessment guidelines. There were still a number of non-accepted centres, but overall there was an improvement on previous years.

Once again, almost all centres were using dedicated 3D modelling software. There was a range of different DTP packages used, from something fairly basic to high-end commercial software. The quality of the software did not have a significant effect on quality of candidate performance, but the more advanced software did allow for more creative work to be attempted.

Student records were better completed, but this continues to be an issue for some, and there were cases where candidates did not complete them at all. Completing records properly should not be ignored, as this gives candidates the

opportunity to give additional information that is to their benefit. There were occasions where this additional information directly affected the outcome of the verification.

Intermediate 2

Most of the folios verified were of a good standard again. Marking continues to be slightly severe, but this is probably due to the application of the standard for Higher within a composite class.

Intermediate 1

The sample was very small but appeared to have no significant issues.

Important points to note

Presenting centres must ensure that their software can fulfil all the requirements of the Course prior to starting.

Once again teachers/lecturers should be aware of the following important points:

- ◆ At Higher it needs to be reinforced that instruments, straight edges, tracing or other drawing aids cannot be used to assist in manual freehand sketching. It is disappointing that these practices still continue, especially when maximum marks are often being awarded.
- ◆ Manual sketching at Higher must not be done retrospectively. In a number of cases the sketches are tracings of the finished CAD drawings. This practice is unacceptable and would receive no marks.
- ◆ DTP planning at Higher, and planning and development at Advanced Higher, must not be done retrospectively either.
- ◆ Draughtmanship, annotation and correct application of British Standards (BS) conventions need to be improved in CAD work across all levels. This includes line thickness, sizes of dimensions, font sizes, fonts used, name boxes and borders. The use of 3D modelling packages surprisingly has resulted in a drop in draughtmanship, but with a little care and appropriate manipulation of setting this can be overcome.
- ◆ All CAD drawings (orthographic and pictorial) must be line drawings and not rendered. This also applies to those using 3D software.
- ◆ Candidates must take more care over the completion of the flyleaf/student record at each level. It gives candidates the opportunity to clarify how parts of a drawing/documents were produced. This aids the verification process and helps to ensure that the candidate receives maximum credit for their work.
- ◆ At Advanced Higher, the description of modelling techniques needs to have more detail and clarity, as this is where the marks are awarded. Without this the model has no value, so it must be treated as crucial documentation for the awarding of marks. Candidates must also use the techniques listed in the *Guidance on Assessment* document.
- ◆ Centres need to be aware that, when using 3D modelling packages at Advanced Higher, the Unit still requires surface modelling to be covered.

These comments are being repeated each year, as many of them are not being addressed.

Areas of good practice and areas for improvement

Advanced Higher: Computer-Aided Graphic Presentation

The final documents were of a mixed standard this year. In some cases the quality was beyond what is required but many others were barely beyond Higher level. There was some outstanding, professional looking material produced, and this is what we should be striving for at Advanced Higher level. Analysis and planning remain the weakest areas.

Analysis

- ◆ Analysis of grid structure/type specification was the best part but tended to be a little untidy. Again, some of the best material followed the format in the exemplar material.
- ◆ Some centres are still not analysing the appropriate number of pages for two different publications. A minimum of two pages from two different magazines is required, therefore the minimum is four pages.
- ◆ The major concern is still a lack of understanding of design principles and elements. The identification of the design elements or principles has improved but candidates fail to describe the effect or impact created. It should be noted that if there is no evidence of an element/principle being used on a page then there is no need to make comments for that page.
- ◆ On many occasions candidates were being awarded close to maximum marks for very little analysis of principles or elements (only one of the pages) or at a very superficial level. There are two issues here: the quality of the work and the correct assessment of the candidate material. Getting the assessment of this area correct would have a significant effect on the number of non-accepted centres.

Planning and development

This section varies dramatically, from very high quality, well presented material, to a few sheets of material that is nowhere near Advanced Higher standard. A significant number do not even produce a design specification.

Thumbnails continue to be varied in quality, with too many of a disappointing standard and being awarded inappropriate marks. Some candidates are producing thumbnails of no better quality or quantity than for Higher. Unfortunately this is not always reflected in the marks awarded. Thumbnail sketches play an important part of the design process, and if done well usually result in a high-quality final document. The same issues as previous years are relevant:

- ◆ There was not enough evidence of consideration of alternative ideas, ideas being developed, or creative use of design elements and design principles. In

some cases it was unclear which of the thumbnails provided the basis for a visual to be produced.

- ◆ Often there would be one good page but subsequent pages appeared to have been rushed in order to have quantity rather than quality.
- ◆ In some cases, thumbnails for only one page were produced. They are required for all pages to be produced.
- ◆ Annotation was lacking in most, and very few candidates commented on grid structure.
- ◆ Some of the best thumbnails contained colour. Even though these are sketched, this should not mean that quality and clarity suffers.
- ◆ There were still a number of cases where the only thumbnails produced were miniature versions of the final document, and therefore clearly retrospectively produced. This is not the way to do it and should not be awarded any marks.

Visuals are improving but there are still common errors:

- ◆ There was still evidence of visuals retrospectively traced from the final electronic version. This is disappointing as both thumbnails and visuals must be completed in full before the electronic version is started.
- ◆ There did not appear to be any progression from the thumbnails to the visual produced.
- ◆ A number of centres were producing visuals that were not accurately drawn. These were freehand sketched and were basically a large thumbnail and not the required full size.
- ◆ Once again there were a number of candidates who did not produce the minimum number of visuals required. We are aware that this can be a time consuming part of the folio but quality and quantity are important.
- ◆ In some cases the visuals consisted of a basic layout indicating only basic text and graphic frames. There should be enough information to produce the electronic version, ie details of page structure including dimensions, all fonts intended to be used, colour, graphics, etc. Too often there was a lack of annotation on the visuals and no sketched graphic items.

Note that there are separate marks for layout and graphic/text.

Due to the process of ongoing evaluation, it is normal for there to be alterations/amendments in the electronic final piece compared with its visual. This tended to happen only with the best submissions.

Implementation and presentation

The quality of printing and presentation of the final documents was very professional in some cases. However, there were too many who did not do their document justice by printing on poor quality paper and at a low quality print setting. There is a cost implication here but the quality of this final presentation is an important part of the folio. Candidates should consider what they would be required to produce in a real life context of presenting their work to a client.

Additionally, there were a number of centres that awarded marks for the electronic template when there was no evidence of it being produced.

The evaluations and modifications continue to be one of the poorest areas, with only a few exceptions. However, marking tends to be okay.

To improve the quality of the work, the candidates require a better understanding of design elements and principles. Failing to have a grasp of these terms is a common theme. The result was a lack of reference to these in the evaluation, which is required to achieve maximum marks. In some cases only a single paragraph was produced. Candidates should be using elements and principles as the criteria to structure their evaluation. A sound knowledge and understanding of the terms is necessary at this level.

Advanced Higher: Computer-Aided 3D Modelling Presentation

Overall, the models produced were complex and of a high standard, but at times, the range of five modelling techniques was not being used. There were also a number of candidates who were confused between modelling techniques and edits/modifications. As a result a number of candidates did not use five techniques from the prescribed list but were using modifications/editing as a modelling technique.

It is the responsibility of both teachers and candidates to ensure that the five techniques are used. It is easy to create a perfect model using a limited number of modelling techniques, but it must be remembered that the marks are awarded for demonstrating the ability to use five techniques. Also, it appears that a number of candidates are unaware that some of the techniques can be found in the scene.

The importance of the report cannot be underestimated here. If the report is left until the completion of the model, it does not help. The best reports have screen captures of each stage, the stages are very clearly described, and it is clearly broken down to the technique itself and the edits/modifications applied (Boolean functions, fillet, chamfer, mirror, array, etc).

As this continues to be the area where the greatest discrepancy exists between the centres' marking and the verifiers' judgement, it needs to be addressed. It is disappointing to see candidates who have produced excellent models losing out because they have failed to write it up properly in the report.

The quality of orthographic and pictorial work produced from models continues to improve, but draughtmanship is still an issue. Other points of note were:

- ◆ A number of candidates still do not produce drawings with facets removed. The orthographic and pictorial drawings should be line drawings and not rendered. This is clearly stated in the *Guidance on Assessment* documents.
- ◆ General draughtmanship is still poor, as appropriate line thicknesses are not being used, scaling of hidden and centre lines is poor, and the selection of font style and size is often poor. A number of candidates using Inventor are

using default settings and are not altering the settings to produce better quality drawings. At Advanced Higher level this should be a basic skill that everyone should have.

- ◆ Some centres are awarding maximum marks for annotation where the candidate was using a default border and name box. The guidelines state that they must create their own.
- ◆ There are very few examples of pictorial cutaways.

There was a drop in the quality of scenes produced this year. Other points:

- ◆ Again, many candidates did not clearly indicate details of how they applied materials and lights. Candidates need to clearly describe, in the student record, how the lighting was produced. Screen captures showing the sources and associated targets would help.
- ◆ Some scenes were small bitmaps stretched to A4 or A3 size. These were pixilated and of a very poor quality and therefore not doing the candidate justice. Again, if the hard copy does not show what has been done, the candidate must use the student record to support it.
- ◆ The teacher should not produce the scene.
- ◆ The scene needs to be appropriate for the model.
- ◆ There are not enough examples of mirrored surfaces or decals being used.
- ◆ It should be noted that the object and scene are produced to the same scale.

Higher

Section A: Manual

This section is worth 1/3 of the total marks and therefore should be given the attention that it deserves. The quality of manual work was poor, with few examples of high quality sketching seen. However, marking tended to be okay: the exception was when tracing of CAD drawings and views produced using drawing instruments/straight edges was evident. It is clearly stated in the *Guidance on Assessment* document that this cannot be done, but it still appears and no marks should be awarded for it. In addition, retrospective work was evident again.

There continues to be a lack of analytical sketching to show technical detail. The purpose of these sketches is to enable candidates to produce CAD drawings. In some cases, the sketches had only a few dimensions and would have been of no use to assist in the production of the CAD drawings, yet some candidates were still being awarded maximum marks.

There was some excellent DTP planning (thumbnails) but in general the quality is poor. Candidates are not considering various layouts or annotating the thumbnails, and the quality of the sketching tends to be poor.

There was a slight improvement again in the quality and detail of the visuals this year. Some visuals were of a standard above what is required. If there was any general criticism it would be that there was a lack of annotation.

Section B: CAD

Generally the CAD work was again of a good standard, but there were also examples that were of a very poor standard for Higher. Most candidates are now making a more appropriate choice of theme (item). A few issues remain though:

- ◆ As with Advanced Higher, general draughtmanship, annotation and application of BS conventions tended to be poor. This seemed to be more of an issue for candidates using 3D modelling software.
- ◆ A number of candidates using 3D modelling software failed to remove facets in the pictorial views. This is clearly stated in the *Guidance on Assessment* document but is being missed. In addition, a few also did not produce line drawings, but submitted rendered views instead. To achieve the marks for pictorial CAD they must be line drawings with facets and hidden detail removed.

Section C: Presentation

Rendering

- ◆ Again, those using 3D modelling packages produced very high quality, realistically rendered objects, either within the package or by using a dedicated rendering package. However, it was difficult to confirm what materials and lights had been applied when candidates did not fill in the student record properly. Leaving outlines on rendered pictorial views was also a common fault, with candidates using some packages such as Inventor.
- ◆ There were fewer that were rendered in a paint package this year, as most centres are now using 3D modelling software.

DTP

The DTP items were mostly very good in terms of quality and marking. The exact same points as last year should be noted though:

- ◆ As with last year, the quality of paper used by some centres did not help to enhance the DTP items. There was a significantly higher standard by those who did use photo quality paper.
- ◆ Many candidates do not put enough thought into the size of fonts used; mostly the problem is the use of a font that is too large for the document. This can make a marked difference to the quality of the DTP piece. Simple research of the type of item they are producing would help.
- ◆ Even though design principles and elements are not formally assessed until Advanced Higher, these should still be considered at this level. They are fundamental for good design in DTP.

The additional promotional graphic

There are still too many candidates not putting enough effort into this area, and this is reflected in the quality of the work. The candidate should be doing some planning, even though this does not get awarded marks but does help achieve a

higher quality item. Some good examples were of a magazine advert or a magazine front cover.

Intermediate 2

Most of the folios verified were of a good standard, with many beyond the level required, especially in the CAD section. Marking was also very good.

- ◆ Some candidates need to put a little more thought into the choice of item. Some items lacked complexity, so the opportunity to include enough dimensions or line types was limited.
- ◆ As with other levels, draughtmanship and use of BS conventions was poor.
- ◆ As with Higher, a number of centres are now using 3D modelling packages to create their CAD and rendered drawings.
- ◆ Student records were completed reasonably well, better than at other levels once again.