



National Qualifications 2008

Internal Assessment Report

Subject: Graphic Communication

Assessment Panel: Technical Education

The purpose of this report is to provide feedback to Centres on verification which has taken place within National Qualifications in this subject.

STANDARD GRADE

ELEMENT / COURSEWORK VERIFIED

Insert details:

FEEDBACK TO CENTRES

Insert details relating to specific guidance which should be offered to Centres based on the verification of Centres.

Include:

- *General comments*
- *Areas of good practice*
- *Areas for further development*

General comments:

Advice on good practice and areas for further development:

NATIONAL UNITS

TITLES/LEVELS OF NATIONAL UNITS VERIFIED

Insert detail:

The following Coursework items were verified:

Advanced Higher Computer-Aided Graphic Presentation
Advanced Higher Computer-Aided 3D-Modelling Presentation
Higher Thematic Presentation
Intermediate 2 Computer Graphics Folio

The assessment criteria for these items were as described in the following Guidance Documents:

Guidance on Assessment – Computer Aided Graphic Presentation
Guidance on Assessment – Computer Aided 3D-Modelling Presentation
Guidance on Assessment – Thematic Presentation
Guidance on Assessment – Computer Graphics Folio

Verifiers also referred to the contents of the Student Record Cards when verifying Coursework items.

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General comments:

Centres should read and apply the “Guidance on Assessment “documents. 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.

It is therefore extremely important that teachers/lecturers are familiar with the new documents. These documents can be found on the SQA website.

Advanced Higher

The overall standard appeared similar to last year with some outstanding pieces of work from some Centres. Once again though, there were a number of non-accepted Centres. In most cases this is due to a lack of familiarity or misinterpretation of the Assessment Guidelines issued. In some cases there is clearly an issue with appreciation of the correct standard to apply. It is therefore important to use the exemplars on the SQA website as guidance.

Higher

Application of the assessment guidelines is much better at Higher. As a result there are less non-accepted Centres.

As with last year the number of Centres using 3D modelling software continues to increase.

There are still problems with the student records though, as too many candidates did not complete them properly or at all. Completing them properly should not be ignored, as this gives candidates the opportunity to give additional information that is to their benefit.

Intermediate 2

Most of the folios verified were of a good standard again. Marking was also very good, but remains slightly severe, still indicating that standards expected for Higher are probably being applied.

Important points to note

Presenting Centres must ensure that their software can fulfill 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 the manual freehand sketching. It is disappointing that these practices still continue.
- Manual sketching and DTP planning at Higher and planning & development at Advanced Higher must **not** be done retrospectively.
- Draughtmanship, annotation and correct application of BS conventions needs to be improved in CAD work across all 3 Levels. This includes line thickness, sizes of dimensions, font sizes, fonts used, name boxes and borders.
- 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. Even though there are no marks awarded for this it gives the candidate the opportunity to clarify how parts of a drawing /document 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.
- Centres need to be aware that when using 3D modelling packages at Advanced Higher that the unit still requires surface modelling to be covered.

Advice on good practice and areas for further development:

Advanced Higher – Computer-Aided Graphic Presentation

Once again the final documents were of a high standard and in some cases beyond what is required. There was some outstanding, professional looking material produced. 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 or two different publications. A minimum of 2 pages from 2 different magazines is required. Therefore a minimum of 4 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 to the required standard. 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 occasion 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.

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 was not always reflected in the marks awarded. There were candidates, however, who produced excellent and well thought out thumbnails but these were too few for this level. As a result the following points made last year are still 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.
- Annotation was lacking in most and very few candidates commented on grid structure.
- 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 continue to improve but those still not getting it right were making the same errors as in previous years:

- 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 a thumbnail to the visual produced.
- A number of Centres were producing visuals that were not accurately drawn. These were 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.
- 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 i.e. 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.

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 quality submissions.

Implementation and Presentation

This has always been the strongest element but there was a greater range this year. The quality of printing and presentation of the **final documents** was very professional in some cases; however, there were a few who did not do their document justice by printing on poor quality paper. 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 produce in a real life context of presenting their work to a client.

There were still a number of Centres that awarded marks for the **electronic template** but there was no evidence of it being produced.

The **evaluations and modifications** continue to be one of the poorest areas with a few exceptions. Previously marking has been satisfactory but it was a little erratic this year.

Candidates lack of understanding of design elements and principles still remains the main issue. Just as with analysis it was evident that a large number of candidates do not have a grasp of these terms. The result was a lack of reference to these in the evaluation. 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 in many cases the range of 5 **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 5 techniques are used. It is easy to create a perfect model using a limited number of modeling techniques but it must be remembered that the marks are awarded for demonstrating the ability to use 5 techniques. If the report is left until the completion of the model it does not help. Also it appears that a number of candidates are unaware that some of the techniques can be found in the scene. It is not a requirement to use screen captures but those that do produce the best reports. Another major weakness in this area is the lack of clarity of what was actually done in using the technique and more so the editing/additional processes used (Boolean functions, fillet, chamfer, mirror, array etc).

This is the area where the greatest discrepancy exists between the Centres' marking and the verifiers. It is disappointing to see candidates who have produced excellent models lose out because they have failed to write it up properly.

The quality of **orthographic and pictorial** work produced from models has improved, but many are still failing to pick up the additional marks. 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 stated in the guidance documents.
- General draughtmanship is still poor as appropriate line thickness 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.

Again there were some excellent **scenes** produced this year, but for every good one there is an extremely basic one that is out of context. 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. A screen capture 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.
- 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

The quality of manual work was very mixed with fewer sketching of high quality again. This section is worth 1/3 of the total marks and therefore should be given the attention that it deserves.

Tracing of CAD drawings and views produced using drawing instruments/straight edges in the freehand section is still a major problem. This has been highlighted every year but there are no signs that it is reducing. It is clearly stated in the "Guidance on Assessment" that this cannot be done but it still appears. There is no excuse for this but when it occurs there should be no marks awarded. In addition retro-spective 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. Some candidates were still being awarded maximum marks though.

There was some excellent DTP planning (thumbnails) but in general the quality is poor. Candidates are not considering various layouts or annotating the thumbnails. In addition 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:

- As with Advanced Higher general draughtmanship, annotation and application of British Standards Conventions tends to be poor. This tended to be poorly done by candidates using 3D software.
- A number of Centres using 3D modelling 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, most of these Centres were awarding up to maximum marks though.

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 common with Centres using Inventor.
- There were very few 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. A few points 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 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. These are fundamental for good design in DTP.

The additional promotional graphic

There are still too many Centres not putting as much effort into this area and this is reflected in the quality. These Centres also tended to mark generously. 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. i.e. some items lacked complexity and therefore 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.
- Candidate Records completed reasonably well. Better than at other levels once again.

COMPONENT / COURSEWORK IN NATIONAL COURSES

COMPONENT/COURSEWORK VERIFIED

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