

National Certificate of Educational Achievement

2013 Assessment Report

Design and Visual Communication (DVC)

Level 1

- 91063 Produce freehand sketches that communicate design ideas.**
- 91064 Produce instrumental, multi-view orthographic drawings that communicate technical features of design ideas.**
- 91065 Produce instrumental paraline drawings to communicate design ideas.**

COMMENTARY

Candidates are achieving better and more consistent grades as teachers fully understand what is required to achieve the standards and the step-ups between the grades.

All teachers need to be made aware of what was, and still is in many parts, the skill base on what some of the standards are built upon, not just the modern take of Graphics / DVC

STANDARD REPORTS

91063 Produce freehand sketches that communicate design ideas.

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- communicated their own design ideas
- limited their use of recognised sketching techniques, crating or rendering but not both
- limited their use of function and aesthetics
- demonstrated some evidence of design exploration
- used a design brief that did not allow the student to move beyond the level of achievement.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- used ruled lines in their drawings
- did not include evidence of 2-D sketching
- did not include evidence of 3-D sketching
- used traced drawings
- lacked student design ideas
- showed evidence of class exercises, illustrating a lack of design ideas.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- produced sketches that clearly explained the construction and structure of their design through detailed, exploded or sectional views
- used accurate crating techniques
- used a wide range of sketching 3-D methods
- in fashion sketches showed some information about structure and construction of the garments
- clearly showed texture and surface features
- effectively showed an exploration of ideas
- somewhere in their design gave dimensions or showed a person or human part in an image to give scale/proportion.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- used a variety of sketching techniques
- included drawings that made it clear what the purpose of the design was
- in the fabrics submissions communicated features such as stitching, patterns, details of construction components
- demonstrated excellent presentation of their design ideas on all sheets of work to a high standard.

OTHER COMMENTS

There was an increased number of submissions from other Technology subject areas, such as Fabrics and Hard Technology. However, these candidates generated freehand drawings with not enough construction lines or detailed visual communication techniques to get a high grade. It is encouraged for teachers to guide candidates to generate design ideas using correct drawing methods to clearly show the design intent and avoid submitting works in clear file format or as a whole journal.

A number of schools included class exercises and drawing practices in their students' portfolios or did not organise the evidence in a logical manner which made it hard and time consuming to work out what students were trying to communicate and what their own ideas were. Students that presented work in a logical manner were able to communicate the evolution and refinement of their own ideas with much more success.

Students that submitted work for this standard that covered 2 or more projects/contexts were also more successful in communicating both functional and aesthetic detail, and conveying intent. In general, product design contexts allowed students to communicate more functional and aesthetic details in depth than architectural contexts, as well as communicate intent and purpose more effectively by including human forms interacting with the product.

91064 Produce instrumental, multi-view orthographic working drawings that communicate technical details of a design.

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- produced two views using projection
- indicated that the drawing was in orthographic projection by a combination of labelled reference line, title, labels, orthographic symbol and drawing title
- produced very simplistic design and little detail
- used fundamental CAD drawings
- used limited drawing techniques and conventions.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- did not show evidence of projection between views
- did not communicate their own design

- used freehand as support drawings in Orthographic
- submitted class exercises as evidence
- provided insufficient evidence of multi-view instrumental drawing knowledge and conventions.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- produced drawings that demonstrated greater understanding of orthographic projection
- produced drawings based on more complex forms that used appropriate construction techniques
- had drawn to an indicated scale
- showed internal details
- used appropriate conventions, for example; title, labelling, correct differentiation between line types.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- were consistent with line types and weights
- produced drawings where design elements were clearly shown
- used appropriate conventions and scale accurately
- showed complex form and shape
- used a design brief that allowed the candidate to gain higher grades
- produced neat, precise and clear drawings with appropriate detail.

OTHER COMMENTS

The quality and quantity of computer-generated drawings were evident. Some showed a lack of instrumental drawing skills and orthographic drawing knowledge. Some of the computer-generated drawings were not drawn to the correct scale or line type. Lack of correct drawing scales was evident.

There was clear evidence of some high quality instrumental work.

Many students produced basic orthographic drawings because their design ideas were basic and lacked technical detail, and although they produced sectional drawings, these did not manage to communicate any more detail. Where students produced orthographic drawings of more complex design ideas, sectional views and hidden detail was much more effective in communicating extra detail. Scale was an issue for many students, as was the distinction between line types. Students that did move beyond Merit were generally deliberate in their sectioning, constructed complex shapes effectively and used all conventions accurately.

Computer-generated drawings showing orthographic views were generally of a much higher quality than in previous years. Line quality was clearer and allowed functional details to be communicated more effectively.

For some, views were over-complicated by trying to show too much information about internal features with too many hidden detail lines that were confusing. Where there was more than one drawing of the same design idea, students were able to show internal detail more effectively through sectioning than trying to squeeze all that information into the one drawing.

91065 Produce instrumental paraline drawings to communicate design ideas.

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- produced drawings of a simplistic form which related to their design
- communicated at the basic level of their design
- used appropriate paraline drawing techniques
- used crating to build up the form of the object
- showed detail of internal components, but with limited accuracy.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- had no design ideas to support the drawing(s)
- had limited instrumental work, but with freehand drawings present
- obliterated evidence of construction and line-work with the inclusion of rendering
- submitted class exercises.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- used exploded views often to show internal parts and/or cut-aways
- produced drawings of complex shape and form with the inclusion of skills, e.g. circles or ordinates
- used correct line weighting
- produced drawings that were complete and accurate.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- used clear and precise line-work
- used two or more related drawings to communicate their design ideas
- used the most appropriate view point for the drawing
- used drawings that were well executed with recognised paraline methods
- submitted complex computer-generated drawings with evidence of construction lines.

COMMENTARY

The use of very simplistic exploded views was common. This did not show detail. Line work was an issue as it was often very light and seen as construction and not outlines. As with the multi-view orthographic working drawings standard, candidates used a basic form, where they struggled to communicate detail in depth and achieve any higher than Achievement. Some schools included drawings of design ideas as they were being explored, this was successful at times but as concept drawings were unrelated, they fell short in in-depth communication and conveying intent.

Students that did really well produced an accurately drawn, well-considered set of drawings that communicated the functional and aesthetic features in detail effectively, they clearly thought about the views they wanted to show and paid attention to detail, demonstrating a sound control and understanding of paraline drawing techniques.

Results for computer-generated drawings were varied. The most successful drawings communicated the form and internal features in a well-considered set of complete, sectional, detail and exploded views. Where a student had simply chosen to show their 3-D form from multiple different angles, they were unable to communicate in-depth information about the structure and use of the design.

Product design contexts were most successful in communicating in-depth functional and aesthetic information. Spatial design contexts mostly focused only on aesthetics.