

Assessment Report

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Level 2 Design and Visual Communication 2019

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91337: Use visual communication techniques to generate design ideas

Part A: Commentary

It was pleasing to note an overall improvement in results, reflecting strong teacher engagement in the professional development offered around the country for the three external standards at this level.

Part B: Report on standards

Candidates who were awarded **Achievement** commonly:

- used visual communication techniques (e.g. observational sketches, sketching from photographic sources and other existing images, 3-D modelling) to generate design possibilities
- showed a range of designs that were generic and predictable
- showed basic functionality, such as measurement, ergonomics, bubble diagrams and simple floor plans
- explored design ideas in relation to a context
- used ideation from research initially (predictable) but did not follow through to concept / own ideas
- showed basic aesthetic and functional qualities – mainly sketched from a few CAD print outs.

Candidates whose work was assessed as **Not Achieved** commonly:

- produced a single concept idea with no alternatives
- focused on aesthetic or functional qualities but not both
- used only very basic and loose pencil sketching of single views, with no colour or tonal variation to convey design qualities
- produced design ideas that had no recognisable functional or aesthetic features making it unclear what the design was
- presented their ideas using poorly executed visual communication techniques, e.g. sketches that were out of proportion or lacked identifiable design qualities
- failed to produce enough evidence to show how their design functioned in terms of operation or construction
- used a single method (2-D or 3-D) to communicate the idea
- produced evidence that was incomplete or lacked the exploration of more than a single idea

- explored sculptural forms without context, use or function
- presented research, site information or images of inspiration with insufficient design ideas of their own.

Candidates who were awarded **Achievement with Merit** commonly:

- presented their ideas using a range of skilfully applied visual communication techniques that conveyed their ideas in a clear and easy to follow way (both functionally and aesthetically)
- used visual communication techniques including well-proportioned 2-D and 3-D drawings, sectional drawings and exploded drawings as appropriate, 3-D modelling (physical and/or digital)
- communicated functional qualities with clarity, showing how the design was intended to work using structural systems or variations for interior space in spatial projects, or by making the intended use or construction clear through appropriate details
- used a variety of angles and views to fully express the qualities of the design
- showed divergent thinking through a range of unusual, interesting and often quirky design ideas using different generative strategies (for example mock-ups, paper modelling, creative experiments with shape and form)
- produced diverse ideas that showed identifiable design qualities – primarily aesthetic.

Candidates who were awarded **Achievement with Excellence** commonly:

- developed design ideas through an initial idea which extended into different or unusual ideas
- selected and applied refined visual communication techniques that were appropriate to what they were communicating. These were convincing, and easy to follow
- presented work that was easily understood and was not confusing at any stage. This enabled clear communication of detail and function often using

exploded drawing, assembly, interior exploration with material alternatives

- showed a range of alternatives that regenerated and manipulated their earlier ideas, often combining or abstracting features in new directions but still with the end goal in site
- presented work where aesthetic and functional qualities were explored in depth and in detail to allow for a full understanding of the design
- extended ideas and reflected in an on-going manner throughout the whole project
- clarified comprehensively the functional and aesthetic details of the design, with depth and clarity, demonstrating a full understanding of the design and communicating this clearly to the viewer
- presented design ideas that were varied, and continually explored showing effective design thinking and a revealing creative response to the brief from initial idea through to solution.

Standard specific comments

Design ideas must be candidate-generated responses to design briefs.

Candidates need to provide evidence of a range of design ideas, not just the exploration of form through extensive ideas that may be divergent but lack the purpose and context to become a design with a three-dimensional aspect.

Candidates and teachers are reminded that the selection of the brief needs to allow the candidate to explore and effectively communicate an innovative and creative design solution.

Candidates need to clearly communicate their design ideas so that other viewers will understand their idea. As part of this it is important that they not make any assumptions about the design. The three-dimensional nature of the idea needs to be clear and both function and aesthetics need to be described visually in a way that makes the idea clear without the assistance of annotation.

Candidates who achieved at the higher levels understood the need to select the most appropriate visual communication techniques to communicate the design ideas effectively to others.

Design qualities are viewed holistically and should include functional and aesthetic qualities. In spatial products this may include how space is organised through floor plans and a connection to the site and users of the space. Product projects should deal with the user interface and ergonomics. Showing the product at different stages of operation also helps other viewers to understand the design.

Candidates need to support their divergent ideas with the inspiration or exploration that inspired their ideas – this does not mean that pages of existing product research are required. Idea exploration is one way to increase the opportunities for divergency. Candidates who investigate pre-existing ideas found it difficult to generate divergent ideas. This situation can arise from a brief that limits the potential solutions.

To extend their ideas candidates had success by showing how their design ideas could be further refined. This might be by recombined their divergent ideas in different ways or creating new ideas that could be once more explored and extended.

Some candidates are submitting multiple pages of research and design influences that contribute nothing to the candidate evidence for the standard. This includes work in visual diaries. For this standard, all that is required is the work that shows the candidate's ability to use visual communication techniques to generate ideas.

Candidates are advised to present their work to assessors in an orderly fashion and arranged in such a way that the progression of ideas is clear.

Digital submissions should be checked to ensure that they are able to be read by the assessor.

91338: Produce working drawings to

communicate technical details of a design

Candidates who were awarded **Achievement** commonly:

- produced a set of interconnected 2-D instrumental working drawings communicating complex visual information and technical details. Most commonly this involved a plan, elevations and clearly related cross-section. Pages were most often connected using page titles and/or page numbering
- used recognised drawing conventions appropriate to the drawings being produced, e.g. labelling, scale, basic line types – construction lines, outlines, section lines
- produced drawings that communicated both functional and aesthetic qualities of their design, i.e. room purpose in their plans and / or materiality in their elevations for spatial. Shape and componentry of a product design.

Candidates whose work was assessed as **Not Achieved** commonly:

- produced a set of interconnected drawings but did not show enough technical details about the design
- produced drawings that were not interconnected or lacked information that connected one drawing to the next
- presented drawings that were not relevant or useful in communicating details of the design. An example of this is the use of exploded 3-D drawings to communicate detail, but at Level 2, detail must be communicated through 2-Dimensional drawings
- produced several pages of drawings of all the components of their design but no 2-D drawing of the assembled design to give the marker any indication what the components were for.

Candidates who were awarded **Achievement with Merit** commonly:

- produced a set of interconnecting 2-D instrumental working drawings that clearly communicated technical details of the design. The drawings clearly showed construction information or complex detailing that related to the

design

- communicated design details clearly with accurate and appropriate use and application of tools to link the pages, e.g. using cutting planes to link to sectional views and NSEW symbols to link plans to elevations
- produced drawings that were skilfully and accurately drawn
- demonstrated good skills in applying drawing conventions appropriate to the drawing being presented.

Candidates who were awarded **Achievement with Excellence** commonly:

- produced a set of drawings that communicated the technical details of their design convincingly
- presented high quality drawings using appropriate conventions for the type of working drawing being presented
- produced drawings that were consistently accurately drawn and included information and details. These drawings often included sectional views, with enlarged details, which allowed the design to be effectively communicated. Details used related to the design, and to the other drawings and added to the set of working drawings to inform the design.

Standard specific comments

Digital submissions worked well for CAD based evidence, but when pencil drawings are scanned detail can be lost, which could disadvantage the candidate.

Candidates who had a very good working knowledge of the CAD programme they were using, as well as good knowledge of communicating complex visual information, generally did very well.

Most submissions are now being made in CAD. While CAD drawings inherently look good, candidates need to remember what they are using that programme for, i.e. to produce a set of related working drawings that communicates technical details.

Linking pages to make the drawings “related” has improved but accuracy in application is essential. For example, some candidates used NSEW symbols in their plans but applied them incorrectly in the labelling of their elevations “north elevation” labelled when it should have read “north east elevation” due to the orientation of the plan. Another example is candidates using a cutting plane to reference or relate to a cross-section but having the cross-section view orientated the wrong way.

One area needing improvement, particularly with CAD submissions, is the use of details from a library that are not related to the design. For example, elevations that do not communicate an exterior material cannot be related to detail showing plaster or elevations showing weatherboard. Depending on the quality of the rest of the drawings, this lack of attention to detail is likely to prevent candidates from gaining higher grades.

More candidates are using 3-D drawings in their submissions (Perhaps in preparation for the level three standard the following year) but are communicating their complex information through the 3-D rather than the 2-D drawings which are being marked. The complex information or detail must be in the 2-D drawings for it to be recognised as evidence for level two.

91339: Produce instrumental perspective projection drawings to communicate design ideas

Candidates who were awarded **Achievement** commonly:

- produced an instrumental perspective drawing that applied the principles of perspective projection correctly - showing the correct setting up of the picture plane, eye level line, ground line, vanishing points and station point
- used perspective drawing techniques to show design features
- showed some detailing or complexity in terms of the form of the object.

Candidates whose work was assessed as **Not Achieved** commonly:

- attempted to produce an instrumental perspective drawing but did not apply the principles of projection correctly. The most common fault was not projecting the vanishing points correctly from the station point and picture plane set up, i.e. not projecting parallel to the plan view from the station point when setting up an angular perspective projection
- misunderstood the relationship between the station point, picture plane and vanishing points
- projected incorrectly
- produced an instrumental perspective drawing that was simple in shape and form and lacked the communication of complex information
- submitted drawings that didn't represent design ideas, i.e. they were classroom drawing tasks.

Candidates who were awarded **Achievement with Merit** commonly:

- produced an instrumental perspective drawing that applied the principles of perspective projection accurately to show detail of the design feature. This included showing the correct setting out of the picture plane, eye line, ground line, vanishing points and correctly using a height line or elevation to project the heights on the drawing
- showed some skill in being able to project clearly the detail of the design features such as window frames, door frames and railings showing thickness and depth allowing the communication of construction or the materials
- produced an instrumental perspective drawing that was skilfully drawn with clear and effective linework
- produced a drawing of sufficient scale or size so detail could be viewed
- plotted points that allowed for more complex shapes and or curves to be drawn.

Candidates who were awarded **Achievement with Excellence** commonly:

- selected a viewpoint that enabled the perspective projection to effectively communicate visual information and detail about the design. The perspective drawing was highly informative and visually realistic, including the overall form and structure of the building or object
- produced a perspective outcome that was accurately projected. Design features were skilfully and accurately plotted such as weatherboards, gaps in fittings, handles, guttering, flooring and decking
- used high level drawing skills to communicate design information.

Standard specific comments

Perspective principles

Candidates who attempted this standard generally understood how to produce an instrumental perspective drawing and achieved success. Those who were able to project detail of the design features accurately were able to access higher achievement levels.

Most candidates produced architectural perspective drawings, using the angular perspective projection method.

In some cases, the height line was projected correctly but the heights were not then projected around the object correctly to plot the required points. This error prevented them from moving past achievement.

In some cases, the perspective drawing was too small to enable the candidate to show design features with any detail – restricting them to an achievement.

To achieve with excellence candidates, need to select a viewpoint that effectively communicates their design. It was pleasing to see that some candidates had spent time selecting a viewpoint and thinking carefully about the relationship between the station point, picture plane, eye line and vanishing points before starting. This enabled them to create a drawing that did not distort their design, and which ensured the drawing was of a size that enabled the design features to be shown clearly and in detail.

Working on A2-size paper is an advantage, but candidates should also be

encouraged to do a draft or practice layout. That way they can seek guidance as to whether their projection is correct and if it is going to be effective.

If extension tabs or wings are used on the sheet to project vanishing points; these must be left attached to the sheet to help the marker verify the use of projection principles.

CAD perspectives:

A few candidates presented their perspective projections generated with a CAD application, either printed and submitted via the portfolio envelope or uploaded digitally in PDF format. This is fine if the perspective projection principles and set-up are followed.

Those that achieved success often presented two pages – one showing the construction lines overlaying the perspective turned on; the other showing the actual perspective without the construction lines to show the features more clearly. If using this method, be aware of line-weights of the final perspective view as thickness of lines can be a factor in showing the clarity of detail.

Candidates need to be mindful of the scale used and the final projected image. A tiny image cannot be copied onto another page by itself and enlarged to show features; this is not classified as a projected view.

Digital presentations:

A few candidates submitted line drawings that had been scanned and uploaded digitally in PDF format. If doing this, be aware of the resolution required to see a clear image of the drawing. There is not any advantage in submitting line drafted perspective projections electronically and it is suggested that at this stage they be sent in the conventional manner, i.e. using the submission envelope provided.

CAD generated projections do lend themselves to being converted to a PDF and submitted digitally for marking so this could be an option for schools.

Guidance:

It is important to attach the plan and elevation to the perspective to justify projection points or indicate stated measurements on a height line, e.g.

cupboard, window, etc. Some candidates had removed these and the markers had trouble verifying heights.

If using a CAD generated plan and elevation, ensure that these are securely attached to the drawing sheet so they do not move.

An indication of the assessment task that the perspective projection came from, or copied design drawings, should be included in the submission. In some cases, it was hard for the marker to discern if they were looking at a sculpture, a building or product as no indication of the brief had been provided. Remember that the work submitted should be showing design features of the candidate's own work, not just a drawing of an object.

There is a need to show construction clearly, especially circles and curved features. These were often just drawn in. To have success at the higher levels these points need to be plotted accurately.

Accuracy and quality drawing skills are expected from Level 2 candidates. This includes keeping drawing sheets and instruments clean and tidy and an appropriate grade of pencil lead for the construction and set-up of the projection.

Instrumental perspective projections are complex drawings and require a good understanding of projection principles.

[Design and Visual Communication subject page](#)

Previous years' reports

[2016 \(PDF, 233KB\)](#)

[2017 \(PDF, 60KB\)](#)

[2018 \(PDF, 119KB\)](#)

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