NZQA
New Zealand Qualifications Authority
Mana Tohu Matauranga O Aotearoa

Assessment Report

On this page

Level 2 Design and Visual Communication 2018

Standards 91337 91338 91339

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:

- communicated ideas using techniques and principles of visual communication (e.g. basic line work, rendering, proportioning, 3-D mock ups and models) that showed design features
- presented their design ideas using a range of visual communication techniques. The most common was sketching that included 2-D and 3-D. Models, collage and Sketch Up or ArchiCAD printouts supported their sketching
- communicated functional qualities through visual means. This was most commonly shown using 2-D and 3-D sketches of floor plans, dimensions, simple ergonomics, elevations, simple details of construction and/or the use of some form of human interface
- communicated aesthetic qualities that indicated shape, form and material finish using modes that varied from pencil rendering, to the use of markers or simple CAD rendering
- generated different ideas that were predictable and/or similar to the researched solutions gathered
- explored design ideas in relation to a context.

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

- presented their ideas using poorly executed visual communication techniques; sketching was often out of proportion and/or lacked identifiable design qualities
- were unable to communicate the functional qualities of their design ideas adequately. Often there was a lack of scale or dimensions and a lack of purpose to the design in relation to the potential user
- failed to produce sufficient evidence to show how their design functioned in terms of operation, fit for use or construction
- lacked aesthetic qualities, often using only a single method (2-D or a single 3-D angle) to represent the idea

- focused solely on aesthetic or functional qualities
- produced evidence that was incomplete or lacking the exploration of more than a single idea
- explored sculptural forms without the context, use or function to turn them into design ideas
- presented research, site information and images of inspiration with insufficient drawings/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 an understanding of their idea in a clear and easy to follow way (both aesthetically and functionally)
- used visual communication techniques such as well-proportioned sketches including detailed 2-D and 3-D drawings, used appropriate sectioning and/or exploded views as required, 3-D models. A number of candidates used Sketch Up or CAD skilfully in digital submissions
- communicated functional qualities with clarity, showing how the design was intended to work by showing structural systems or variations for interior space in spatial projects, or in product designs making the intention of use or construction clear through appropriate details
- communicated aesthetic qualities with clarity; generally, this was limited to colour, texture, tone, shape, form and surface finish
- used a variety of different views to fully express the qualities of the design from different angles
- showed divergent thinking, producing a range of unusual, interesting, often quirky design ideas using different generative strategies (e.g. mock-ups, research inspired ideas, concept generation, creative experiments with forms and shapes)
- produced diverse design ideas that clearly showed identifiable design qualities which tended to be primarily aesthetic in nature.

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

- selected and applied refined visual communication techniques that were appropriate to what they were communicating. These were convincing, and easy to follow and understand
- 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 revealing creative responses to the brief context from initial idea through to solution
- extended their design thinking through the on-going exploration, regeneration and manipulation of their ideas visually in a manner that is informed within the design context.

Standard specific comments

Candidates need to be clear in the communication of their design ideas and make sure that they are not making assumptions about the design. The function and aesthetics should be clearly described visually (without reliance on annotation) as well as a clear visual description of the three-dimensional nature of the idea. Candidates who achieved at the higher levels understood the need to select the most appropriate techniques to visually communicate their design ideas in an effective way, to enable them to effectively generate design ideas and show design qualities with clarity and refined detailing.

Design qualities are viewed holistically and should include functional and aesthetic qualities. In terms of dealing with function, spatial projects should deal with the organisation of space through floor plans and a connection to the site conditions and users of the space, and product projects should deal with ergonomics and user interface. Showing the design at different stages in its operation also helped visualise the design.

Candidates need to be aware that they are required 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

artefact that has a three-dimensional aspect.

Candidates need to support their divergent ideas with the source material or exploration that has inspired their ideas. Idea exploration and extension is one way to increase the opportunities for divergency. Candidates who investigate very common, pre-existing and obvious ideas found it difficult to step away from the standard design and generate diverse ideas. Often these situations came from a brief that limited the potential solutions.

Candidates who extended their ideas showed how their design ideas could be further refined. They recombined their divergent ideas in different way, creating new ideas that could be once more explored and extended.

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.

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.

Design ideas must be candidate generated responses to design briefs.

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 showing technical details. and complex visual communication. Most commonly this involved a plan, elevations and a clearly related cross section
- used 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.

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

- produced a set of interconnected drawings that did not show enough technical detail about the design. The most common example was a working drawing of a product that contained a plan or top view, an end elevation and a sectional view, but lacking any technical details of distinct parts and their assembly
- 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-dimensional drawings to communicate the detail but at level 2, detail must be communicated through 2-dimensional means).

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. Drawings clearly showed construction information or complex detailing that related to the design
- produced drawings that used an accurate and appropriate application of

tools to link the pages/ to make the pages related. For example, 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 appropriately 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 effectively and were presented to a high standard using appropriate conventions for the type of working drawing being presented
- produced accurate drawings that included information and details to show an effective understanding of the design. These drawings often included sectional views with enlarged details to communicate the design convincingly
- used details relating to other drawings, which added to the main set of working drawings thus further informing the overall design.

Standard specific comments

The inclusion of digital submissions this year was a new initiative. It worked very well for CAD-based evidence. However, with scanned pencil drawings detail can be lost, potentially disadvantaging the candidate.

The use of appropriate scale is also an issue for digital submissions because scale cannot be easily checked in this format. This is particularly important at excellence level.

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

Many more submissions are being made in CAD. While the submissions looked good, closer inspection of the work revealed that some candidates lacked an understanding of why they were using the program (for example, to produce a

set of related working drawings that communicated technical details).

An area of concern with CAD submissions is the use of details from a library. Often these details either did not or could not be related to the design. For example, details selected when elevations do not identify an exterior material; elevations showing one form of cladding but the detail showing another.

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
- produced a perspective drawing that showed some complexity in terms of detail and / or form.

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

- produced an instrumental perspective drawing where the principles were not applied correctly. The most common fault was not projecting the VP's correctly from the station point and picture plane set up (i.e. not projecting parallel to the plan view from the SP when setting up an angular perspective projection)
- produced an instrumental perspective drawing that was simple in shape and form and lacked the communication of complex information in terms of showing any real detail of the design features.

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

- produced an instrumental perspective drawing that applied the principles of

perspective projection correctly, showing the correct setting out of the picture plane, eye line, ground line, vanishing points and correctly used a height line, or elevation, to project the heights on the drawing. Note: if a height line is being used the different height marks should be labelled. This helps the marker to verify features

- 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 construction or materials
- produced an instrumental perspective drawing that was skilfully drawn in terms of clear and effective linework
- produced a drawing of sufficient scale/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 view point that enabled the perspective drawing to communicate visual information about the design effectively
- produced a perspective drawing that was highly informative and visually realistic
- 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 the design information – these included techniques such as exploded views or showing additional interior information through windows.

Standard specific comments

Perspective principles

Candidates who attempted this standard generally understood how to produce an instrumental perspective drawing. They understood the principles of instrumental perspective and how to apply them. Those who were able to

project details of the design features accurately were able to access higher achievement levels. The majority of candidates produced architectural perspective drawings, using the angular perspective projection method.

Common issues that prevented candidates achieving at the higher levels were related to not using the height line correctly - the height line was often 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 achieved.

In some cases, the perspective drawing was too small to enable the candidate to show design features with any detail and therefore restricted them to the achieved level.

To achieve with excellence candidates needed to select a viewpoint that effectively communicated their design. It was pleasing to see a number of candidates had spent time selecting a view point and thinking carefully about the relationship between the station point, picture pane, eye line and vanishing points before starting. This ensured that the drawing did not distort their design – allowing it to be drawn to a size that enabled the design features to be shown clearly and in detail

Working on A2 size paper is an advantage, but students should also be encouraged to do a draft or practice layout. That way they can seek guidance as to whether their projection is going to be effective and is correct.

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.

It is recommended that paper should be the medium used to do the drawing on. Large sheets of cardboard become problematic for the markers when folded several times to fit inside the A3 bag, as they don’t lay flat for marking.

CAD perspectives:

A few candidates presented CAD perspectives, either printed and submitted via the portfolio bag or uploaded digitally in PDF format. Those that achieved success presented two or three drawings - one showing the construction lines

overlaying the perspective, 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.

Digital presentations:

A few candidates submitted line drawings that had been scanned and uploaded digitally in PDF format. For many of these the resolution was of a poor quality and detail was lost; resulting in a poor grade. There isn't any advantage in submitting line drafted perspective projections electronically and it is suggested that at this stage they be sent in the conventional manner.

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. A number of candidates had removed these and the markers had trouble verifying heights.

An indication of the assessment task that the projections came from, or copied design drawings, should be included. In some cases, it was hard for the marker to discern if they were looking at a sculpture, a building or some kind of product as no indication of the brief had been provided and the object was a curvy, bendy form.

Candidates and teachers are advised to note the importance of accuracy and high-quality drawing skills expected from level 2 candidates.

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

Design and Visual Communication subject page

Previous years' reports

2016 (PDF, 233KB)

2017 (PDF, 60KB)