2023 NCEA Assessment Report

Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Subject: Design and Visual Communication

Level: Level 2

Achievement standard(s): 91337, 91338, 91339

Report on individual achievement standards

Achievement standard 91337: Use visual communication techniques to generate design ideas

Assessment

Candidates need to select evidence for a portfolio that demonstrates they can use visual communication techniques to explore the functional and aesthetic qualities of the design to generate design possibilities.

Commentary

There was a good range of contexts represented in the design work, which was split between spatial, textiles, and product.

Overall, candidate work met the requirements of the achievement standard. In some cases, the brief given to candidates appeared to restrict their ability to achieve highly.

There are an increasing number of submissions that have a large proportion of material submitted that is not relevant, mainly in the form of research or elaborate ideation.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- produced a limited range of generic ideas or expected outcomes, heavily influenced by research images
- contextualized their ideas so that they became an idea rather than just a form. (i.e, communicated context)
- produced ideas that communicated the basic function and aesthetics as a solution to a brief
- considered aesthetics – usually form supported by material looks
- considered function – often generic or consisting of simple detail. Usually materials and construction, and human interface as the main aspects, and then elements specific to the context such as floor plans for spatial, pattern pieces for textiles, and construction for products.

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

- generated ideas of their own that were interesting or different to generic or expected outcomes. These were often influenced by a design era, designer or observational drawings of forms, rather than existing solutions in the same context
- explored their ideas in greater detail visually – using a range of visual communication modes and viewpoints
- explored aesthetic and functional qualities using clear visual communication techniques
- showed more balance between the aesthetic qualities and the functional qualities of the ideas.

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

- generated a range of interesting or different design ideas with function embedded from the start and developed in conjunction with aesthetic narrative
- thoroughly explored function and aesthetics with attention to some of the finer details of their designs
- used multiple viewpoints and angles throughout their design process and included different modelling and visual communication techniques
- visually communicated their thinking with a clarity and level of execution that was refined, using the most appropriate mode of communication for what was being communicated
- provided clear and easy to follow responses with human factors embedded throughout
- explored and reflected on ideas, often regenerating, and manipulating to challenge design ideation.

Candidates who were awarded **Not Achieved** commonly:

- provided evidence where it was not clear what the design was – this was usually due to the absence of context or functional qualities being communicated or the visual communication being poor.

Achievement standard 91338: Produce working drawings to communicate technical details of a design

Assessment

Candidates are required to produce two-dimensional instrumental working drawings that show their own design decisions and communicates complex design details using appropriate conventions.

Commentary

The majority of submissions are now being made with CAD. On inspection, in some cases, it is possible to see that some candidates lack understanding as to what they were using that program for in the first place, i.e. to produce a set of related working drawings that communicated technical details of their design. It is important that candidates have a good understanding of the fundamentals of working drawings, as it is clear when candidates allow the software to do the thinking for them.

The quality of the work produced was variable and it is clear that an in-depth understanding of what working drawings are, their purpose and how to produce them, still needs to be communicated to candidates. This type of visual communication is fundamental to the subject, Design and Visual Communication.

Candidates need to be aware of the purpose and importance of the title block. Candidates should use the title block correctly to link the set of related drawings. The title in the block should be specific to the project design being worked upon, e.g 'Holiday Home', rather than 'working drawings'.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- demonstrated an ability to produce a set of interconnected 2D instrumental working drawings to show technical details expressing complex visual communication; most commonly this involved a plan, elevations, and clearly related and linked cross section
- related pages through the use of page titles and / or page numbering in sequence
- showed the use of 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, e.g. room purpose in their plans and / or materiality in their elevations for spatial, shape and componentry of a product design
- produced several pages of drawings of all the components of their design but limited 2D drawing of the assembled design with no section of the assembled project.

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

- produced a set of interconnecting 2D instrumental working drawings that clearly communicated technical details of the design – drawings clearly showed construction information or complex detailing that related to the design
- used appropriate tools and applied them correctly to link pages in order to clearly communicate, helping to make the pages related, for example but not limited to, the use of labelled cutting planes to link to sectional views, NSEW symbols to link plans to elevations and effective project descriptions and page sequence numbering in the title blocks
- produced drawings that were skilfully and accurately drawn, either by hand with instruments or with CAD applications
- demonstrated good skills in applying drawing conventions appropriately to the context of drawings being presented, e.g. in the spatial or product design fields.

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 drawings that were, consistently, accurately drawn and included information and details so as to effectively understand the design. These drawing often included sectional views, with enlarged details, which allowed the design to be effectively communicated.

- accurately used details related to the design and were consistent with information communicated in the other linked drawings. They were added to the set of working drawings to effectively inform the design and support the coherency of the communication
- allowed the set of drawings to flow and the technical information easy to understand – the relationship of parts and interconnected nature of the sheets enabled this.

Candidates who were awarded **Not Achieved** commonly:

- produced a set of interconnected drawings that did not show enough technical details about the design; the most common example was a working drawing of a product that contained a plan or top view, end elevation and a sectional view that lacked any technical details of distinct parts and their assembly or spatial designs that showed no functionality in the plans as well as no materiality in the elevations
- lacked labelling on room spaces in floor plans or were described with the placement of furniture blocks
- produced product design drawings with a lot of details, but no or limited assembled views of the overall object – if these were provided then often there was no dimensioning to show how big the object was and to relate it to the given scale
- produced drawings that were not interconnected; in other words lacked information that connected one drawing to the next, e.g. poor use of the title block, page sequence or linking the north symbol to elevations
- demonstrated poor use of drawing conventions throughout the set, including a lack of dimensions to verify the size or of the object or scale of the drawings
- produced drawings that lacked complex visual information, i.e. the design or object being conveyed was too simple and/or didn't have scope to show complexity in how the parts would be connected together.

Achievement standard 91339: Produce instrumental perspective projection drawings to communicate design ideas

Assessment

Candidates are required to produce instrumental perspective projection drawings that show their design decisions. They must produce parallel perspective projection and/or angular perspective projection, and apply appropriate construction, including: use of picture plane, station point, eye-line levels, vanishing points, and height lines, including the set-up of the plan and elevations to indicate proof of heights.

Commentary

Candidates need to show construction clearly, especially circles and curved features. Often these were drawn in freehand or guessed. Candidates who achieved at higher levels accurately plotted these points.

Accuracy and quality drawing skills at the correct level should be encouraged. This includes keeping drawing sheets clean and tidy and considering the choice of pencil grade. Design details and features need to be conveyed within this standard.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- produced an instrumental perspective drawing that applied the principles of perspective projection correctly, showing the correct setting out and use of the picture plane, eye level line, ground line, vanishing points, and station point
- used perspective projection techniques to reveal design features; these showed some detailing / complexity in terms of the form and features of the object – however, these features actually need to be evident in the plan and elevation to be projected. Guessing widths and bringing these into the perspective won't allow the candidates to go to the Merit level.

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; showing the correct setting out and use 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 are projected correctly
- 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 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 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
- used the picture plane and view point effectively to produce an enlarged image of the object / building of sufficient scale / size so detail could be clearly seen and the key details enhanced. This was done through projection techniques, not digital manipulation
- 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
- exhibited high levels of drawing skills used to communicate design information; techniques such as exploded views or showing additional interior information through the windows, or some exterior cladding removed to show wall framing was effective

Candidates who were awarded **Not Achieved** commonly:

- attempted to produce an instrumental perspective drawing where the principles of projection were not applied 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
- did not correctly project the relationship between the station point, picture plane and vanishing points
- did not have an elevation or labelled features on a height line to project the object's height from
- produced an instrumental perspective drawing that was too simple in shape and form and lacked the communication of complex information in terms of showing any real detail of the design features
- the drawings presented didn't represent the candidate's own design ideas, but were a drawing task
- did not submit an instrumental perspective projection, but rather a freehand perspective sketch or a computer-generated perspective image with no projection, e.g. a SketchUp CAD model.