2023 NCEA Assessment Report

Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Subject: Design and Visual Communication

Level: Level 3

Achievement standard(s): 91627, 91631

Report on individual achievement standard(s)

Achievement standard 91627: Initiate design ideas through exploration

Assessment

Candidates are required to demonstrate that they can use a starting experience to generate ideas, and by using visual communication strategies, transform these ideas in a way that enables the formation of design ideas. The drawings must convey the design requirements of the standard and communicate the candidate's knowledge, understanding, and skills relevant to the standard. Evidence is submitted as a portfolio.

Commentary

Interpretation of the standard continues to be crucial with some teaching practice evident that encourages exciting individual design thinking – expressing the importance of idea generation / "driving ideas" to advance original and inspired / engaging design thinking.

The design brief played an important part of candidate's success; the large commercial architectural projects attempted by candidates tended to be difficult for them to manage. Product projects 'starting experiences' that had diverse / wider thematic connections tended to offer greater scope for interpretation.

It was more difficult for candidates who didn't understand the purpose of ideation (visual interrogation and regeneration) to exploring more creative / original / unique design ideas and outcomes.

Candidates who used too many starting points, or were engaged with too many themes, did not convey a clear train of thought, and often treated them superficially or as decorative elements only.

Some candidates did a lot with their interrogation and regeneration, but this did not necessarily carry on into their design ideas. Demonstrating links to a potential design idea is a requirement of the standard. In a spatial design context, this might be demonstrated through some appropriate floor plans, or elevations, or interiors and exteriors, and / or site contextualisation; in a product design context, this might be demonstrated through some appropriate external and internal details and parts / components, or exploded drawings, or cross sections. In both cases, showing the human figure (or part of) was beneficial in showing the functional aspect of the design idea as was using visual communication rendering techniques to emphasise the 3D qualities of the ideas.

Making sense of research, exploration, and the design context to generate and explore meaningful design ideas is important.

Continually revisiting the main train of thought throughout the development and resolving of their design idea is important. Creating and developing a clear visual narrative is also important.

There were a variety of modes used from sketching to physical modelling to digital modelling – the more successful projects tended to use multiple visual modes.

Understanding the purpose of visual communication techniques and principles to explain design ideas and design thinking remains at the core of this standard – for example, using families of drawings, hierarchy of visual information, drawing conventions and principles suited to spatial or product design.

Some candidates submitted evidence that was not relevant to the exploration aspect of this standard. These projects would benefit from curation that recognises the differences between the internal and external standards.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- used starting points to generate and regenerate alternatives and variations of 3D ideas and forms
- used 3D alternatives and variations directly connected to their own design ideas
- showed their different design ideas with multiple images, e.g. different viewpoints, interior / exterior, or whole / details)
- communicated their design ideas with visual communication techniques that were easy to follow and suitably detailed
- extended their ideation to an overall form or part of a design idea, but without further evolution, i.e. presented simplistic, predictable, or limited ideation strategies and design ideas

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

- reinterpreted their ideation and it applied it through their design ideas with purpose relevant to the context of the project
- demonstrated the reinterpretation of their ideation through design ideas that are meaningful in progressing their main design idea
- used an emerging train of thought that saw the ideation taken into the initial ideas and into some further exploration of their main design idea
- showed connection and consideration of human use, experience, interaction and to the environment
- used thoughtful and carefully chosen visual communication techniques and strategies to extend and grow the design thinking
- linked the body of work as a ‘whole’.

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

- took their design ideas further, moving their design idea in new, thoughtful, or imaginative ways
- kept incorporating their train of thought and ideation in a cohesive way
- created design outcomes that were transformative (and not what would have been obvious at the outset of the project)
- showed clear consideration of human and environmental interaction and / or use
- created a strong visual narrative throughout
- used sophisticated and varied visual communication techniques and strategies.

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

- showed no clear inspiration sources and or a starting experience
- showed no regeneration of 3D ideas or forms
- presented design ideas that did not connect to their ideation
- presented only one design idea (or just a final design)
- did not generate design ideas that were either spatial design or product design containing the associated aesthetic and functional considerations – either because it was unclear or because it was more illustrative or sculptural in nature
- used starting experiences and forms too literally, with no visual interrogation that moved beyond the initial form
- presented poor or unclear visual communication, with no contextualising of the design ideas and / or had limited views.

Achievement standard 91631: Produce working drawings to communicate production details for a complex design

Assessment

Candidates were required to produce a set of related drawings that can utilise 2D and 3D modes, instrumentally constructed / modelled using either traditional drafting equipment or computer applications. Evidence for this standard should involve the selection of views and modes, informed by accepted design and visual communication practice and convention. The drawings must convey the design requirements of the standard and communicate the candidate's knowledge, understanding, and skills relevant to the standard.

Commentary

Spatial design was the most common type of submission and CAD has become the most used graphic mode. This growing media choice is enabling candidates to produce complex designs that are directly related and accurately executed. However, candidates must also understand projection, conventions, and standard drawing practices used in New Zealand. (Refer to Explanatory Note 6 of the Achievement Standard.)

Conventions include those which are commonly applied within a community of practice, e.g. engineering (SAA/SNZ HB1:1994), or architecture – building and landscaping (NZS/AS 1100.101:1992) Technical drawing – General principles; (NZS/AS 1100.301:1985) Technical drawing – Architectural drawing.

Candidates must use standard accepted scales. When using CAD, fit to page can produce non-recognised scales. It is important that details relate to the area they are explaining (detailing), i.e. the same materials and orientation as the cross-section or area they are explaining. Candidates also need to understand and use scales correctly. Issues with scale can prevent candidates from advancing beyond the Achievement level.

Candidates must understand the importance of referencing drawings, especially when detailing. A well-produced detail drawing will not gain higher grades if it is not referenced back to the area it is trying to explain or related to.

It is pleasing to see submissions that are still being produced by conventional drawing methods. Drawing board submissions are still achieving high grades.

Candidates producing work digitally are encouraged to submit digitally – this is easier, faster, and safer.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- selected a design of adequate complexity
- included views and modes that would conventionally be used as a set of working drawings, including site plans, floor plans, elevations, cross-sectional views, assembly views, detail views, material information
- included exterior and interior detail related to their construction and / or assembly
- showed some proficiency in drawing conventions
- indicated the relationship of one drawing to another using recognised conventions
- Identified materials using appropriate hatching, colouring, or symbolic reference of material types and / or used labels.

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

- showed precise measurement and dimensioning, accurate line-work and good application of drawing conventions
- produced a complete set of linked drawings with the exterior and interior detailing, explaining the construction and assembly of the design with accuracy
- presented drawings that were the outcome of considered design thinking and represented a solution to a design problem.

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

- showed excellent and consistent use of drawing conventions and standards
- included all relevant drawings to clearly communicate detailed construction and assembly information using carefully selected series of plans, elevations, section views, assembly views, and enlarged detail views
- included three-dimensional drawings, pictorial views, and / or CAD models or animations to clearly communicate assembly and construction. The animations offered sequential information that clearly communicated assembly and rotational views that explained 3D design details.

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

- did not submit a set of working drawings
- selected a design of inadequate complexity
- produced working drawings of the exterior or interior (by using cross-sections) but not both
- did not communicate construction or assembly of their designs using appropriate detailed drawings
- did not communicate materials or components / parts adequately
- did not show an understanding of drawing conventions
- produced drawings that were not linked and / or related to each other
- included drawings with contradictory information, e.g. different measurements for the same item
- did not present formal drawings
- presented drawings that were not to scale or did not have dimensions to enable scale to be verified or view labelling was missing.
