Assessment Report

Level 2 Design and Visual Communication 2017

Standards 91337 91338 91339

91337: Use visual communication techniques to generate design ideas

Candidates who were awarded **Achievement** commonly:

- presented different design ideas that were communicated using multiple viewpoints to explain the 3-D qualities of the designs which communicate both aesthetic and functional aspects of the design – this was best shown through some sort of human interface
- 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: most commonly presented techniques were sketching that included 2-D and 3-D, with models, collage and Sketch Up or ArchiCAD printouts to support their sketching
- communicated functional qualities through visual means; most commonly this was shown using 2-D and 3-D sketches of floor plans, dimensions, simple ergonomics, cross-sections and detailed drawings to indicate construction
- communicated aesthetic qualities that indicated shape, form and material finish using modes that varied from pencil rendering to use of markers
- generated different ideas that were predictable and/or similar to the researched solutions gathered.

Candidates who were assessed as **Not Achieved** commonly:

- presented their ideas using poorly executed visual communication techniques; sketching was often out of proportion and 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
- aesthetic qualities were poorly communicated, often using only a single method (2-D or a single 3-D angle) to represent the idea
- focussed 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 to turn them into design ideas.

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

- presented their ideas using a range of visual communication techniques that were skilfully applied to convey understanding of their idea in a clear and easy to follow way, both aesthetically and functionally
- presented techniques were well proportioned sketches including detailed 2-D and 3-D drawings, using appropriate sectioning and/or exploded views as required, 3-D models. Digital images created in Sketch Up and ArchiCAD were used
- communicated functional qualities with clarity, showing how the design was to work (e.g. how the design was intended to be used, how the product fits into the hand, or construction 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:

- applied refined visual communication techniques that were appropriate to what they were communicating, which were convincing, easy to follow and understand
- clarified comprehensively the functional and aesthetic details of the design, with depth and clarity, to demonstrate a full understanding of the design (both internally and externally
- designed ideas that were varied but also explored continually to show effective design thinking and creative responses to the brief context
- 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. Often recombining and abstracting features to lead in a new direction.

Standard specific comments

Candidates need to be clear in the communication of their design ideas and that they are not making assumptions about the design. The function and aesthetics should be clearly described visually (and not be reliant on design 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 choose the most appropriate techniques to enable them to effectively generate design ideas, showing 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 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 evidence a range of design ideas, not just the exploration of form through extensive ideas that may be divergent, but lacks 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 that has inspired their ideas and verifies that the student is not just appropriating this research material – idea exploration and extension is a way to increase the opportunities for divergency. Candidates who investigate very common, pre-existing and obvious ideas found it difficult to step outside the square 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.

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 should be removed. 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 progressions of ideas are clear.

Digital submissions should be checked 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:

- demonstrated an ability to produce a set of interconnected 2-D instrumental working drawings to show technical details; most commonly this involved a plan, elevations and clearly related cross section or produced a set of working drawings that were referenced and included detailed plans and elevation showing exterior detailing
- showed the use of recognised drawing conventions appropriate to the drawings being produced, e.g. labelling, scale, basic line types – construction lines, outlines, and section lines.

Candidates who were assessed as **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
- produced drawings that were not linked (interconnected); i.e. lacked information that connected one drawing to the next or submitted drawings that were not relevant and useful in communicating details of the design.

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 were skilfully and accurately drawn
- demonstrated good skills in applying drawing conventions appropriately to working drawings.

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

- produced drawings that were consistently drawn accurately and included information and details to clearly understand the design. These drawings often included sectional views, with enlarged details, which allowed the design to be effectively communicated
- demonstrated good skills in applying drawing conventions appropriately to the drawing type being presented.

Standard specific comments

This standard is suited to candidates with strengths in CAD and/or those with strong 2-D manual drawing skills. It is about producing a set of related two-dimensional instrumental working drawings that show one's own design and its technical details. This year saw an increased number of 3-D drawings supporting the working drawings - these are not needed.

It must be remembered that this standard is about producing working drawings. Working drawings are a set of related 2-D drawings.

Candidates who achieved well, produced a coherent set of working drawings that communicated technical details of the design, they were accurate and showed quality drawing skills including conventions that were appropriate to the type of drawing produced. The views were correctly scaled, used symbols to indicate sectioning and details were clearly labelled and referenced to each other.

The importance of relating (linking) the set of drawings using conventions is crucial in communicating complex and technical information in order to inform all supporting drawings.

Simple drawings that included a plan, elevations and a cross section often lacked the detailing that clarified the workings and/or construction of the design. Often all that is needed to achieve at a higher level is to add some technical detailing (e.g. enlarged construction details or parts and/or assembly) to increase the clarity and complexity of the communication and therefore making it a more complete set of related drawings.

Spatial design:

Architectural drawings often included a plan drawn to 1:100 or 1:50 scale that showed benches, baths, showers and fittings which clearly indicates the function of the rooms. Two or even four elevations were drawn to a scale of 1:100 or 1:50, these views often indicating materials used and were usually supported with a cross section at 1:50 and one to two enlarged details drawn to a scale of 1:10 or 1:5 to allow more detailed information about the construction to be shown. A few candidates presented cross-sections at 1:20, which allowed for more complex visual information to be shown clearly without drawing enlarged details.

For architectural work to achieve well candidates must reference their drawings. In many cases this is as simple as placing a north symbol on the plan view and referencing this to the elevations. Candidates who failed to reference their drawings to one another or label their views were restricted in their achievement levels.

In some cases, candidates using CAD simply produced plan views, elevations and cross sections. Often the cross section was drawn at a 1:50 scale supported by larger construction details drawn at 1:10 or 1:5 scale, however the enlarged detail was simply an enlargement of what they had drawn at the 1:50 scale, which did not add any extra constructional information to the detail and therefore limited their success.

In other cases, these enlarged details were imported generic details such as footings, foundations, window head and sill details, eaves / roof construction. While these are not the candidate's own design ideas, these details are acceptable. It must be noted that they must be correctly applied to the candidate's own design work and referenced correctly to their drawings. In some cases,the cladding, materials or construction shown in the detail did not relate to that shown in their own design. These candidates only achieved at the lower levels. Drawings and details must relate to the candidate's own design.

Product design:

Product design often included a plan / top view and sectional elevation drawn to standard scales (typically 1:20 or 1:10)

The cross section was supported with a number of enlarged details drawn at 1:5 scale which showed the construction and function of the product. To enable these drawings to be viewed effectively these details must be referenced to the elevations / cross section.

Those candidates who showed clear and accurate detailing, referenced their details and used conventions appropriate to this type of drawing achieved well.

CAD Drawings:

Candidates who check their printer setting before printing their work, thus avoiding drawings not printing out accurately to scale were more successful.

Line work is an issue; candidates must use the correct line tools, often lines were drawn too thick, conventions were not shown correctly and in some cases the technical detailing was not clearly communicated. There is still a need to learn the correct use of these programmes.

Conventions:

The use of standard scales has improved. However, the reminder is still there to encourage candidates to use standard scales (e.g. 1:100, 1:50, 1:20, 1:10 or 1:5). In a small number of cases candidates had just made up a scale to suit the page. This is not appropriate. Teachers are reminded that there are clear drawing conventions to be used when drawing 2-D working drawings. To gain merit or excellence these need to be applied appropriately and accurately to the type of drawing.

Proof of candidates own design work:

This varied from one page photocopied from the candidate’s design work to several photocopied pages. All that is needed is a one photocopied page as proof that it is the student’s own design.

Working drawings must be candidate generated responses to design briefs. There should be no common class exercises or bodies of work that are not the individual student’s generated ideas or solution.

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 who were assessed as **Not Achieved** commonly:

- produced an instrumental perspective drawing where the principles were not correctly applied; the most common fault was not projecting the vanishing points correctly from the station point and picture plane set up
- submitted drawings where the relationship between the station point, picture plane and vanishing points were not understood and therefore were not projected correctly
- 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.

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 the height line 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 materials
- produced an instrumental perspective drawing that was skilfully drawn in terms of clear and effective line-work
- plotted points that allowed for more complex shapes and / or curves to be drawn.

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

- selecting a view point that enabled the perspective drawing to communicate visual information about the design effectively and the perspective drawing was highly informative and visually realistic
- produced a perspective drawing that was accurately projected. Design features were skilfully and accurately plotted (e.g. weatherboards, gaps in fittings, handles, guttering, flooring and decking). A high level of drawing was used to communicate this design information.

Standard specific comments

Candidates attempting this standard generally understood how to produce an instrumental perspective drawing and achieved success. They understood the principles of instrumental perspective and how to apply them. Those that could project detail of the design features accurately were able to access higher achievement levels. More candidates produced architectural rather than product perspective drawings.

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 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 and therefore restricted them.

To achieve with excellence candidates needed to select a viewpoint that effectively communicated their design. Some candidates had spent time selecting a view point and thinking carefully about the relationship between the station point, picture plane, eye line and vanishing points before starting. This enabled them to obtain a drawing that did not distort their design and allowed the drawing to be drawn to a size that enables the design features to be shown clearly and in detail, therefore enhancing their drawing.

CAD perspectives:

A few candidates presented CAD perspectives. Those that achieved success presented two or three drawings - 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.

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. It is acceptable for candidates to fold over larger drawings / plan views that stick out of the page.

Candidates are encouraged to utilise accuracy and quality drawing skills.

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
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