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Assessment Report

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Level 2 Design and Visual Communication 2021

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Standards 91337 91338 91339

91337: Use visual communication techniques to generate design ideas

Examinations

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

The best submissions carefully curated their work so that the generation of their design ideas was easy to follow. Submitting evidence unrelated to the standard such as research and non-contextual exploration detracts from the work that is submitted. Work should also be submitted in the order that the candidate intends the marker to view it – related pages / projects should be put together so that the generation of the idea is easy to understand and follow.

Observations

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.

Initial ideation generates shapes and forms, but those shapes and forms need to be contextualised before they become ideas. What is it? How will the marker recognise it as such?

Candidates and teachers are reminded that the selection of the brief needs to allow the candidate the latitude to explore and effectively communicate an innovative and creative solution. Candidates need to understand their design in order to clearly communicate it to the viewer. It is important that no assumptions are made about the design.

The three-dimensional nature of the idea needs to be communicated visually in a way that makes the functional and aesthetic ideas clear, without the need for 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 consider both functional and aesthetic qualities. Showing the design from a variety of angles assists in the understanding of the viewer. In spatial designs this may include how space is organised through floor plans, interior spaces and a connection to the site and the users of the space. Product projects should deal with the user interface and ergonomics. Showing the product at different stages of operation also helps viewers to understand the design.

Candidates need to support their divergent ideas with the inspiration or exploration that inspired the ideas. Idea exploration is one way to increase the opportunities for divergency. Candidates who investigate pre-existing ideas found it difficult to generate divergent ideas. Some briefs also limit the opportunity for divergent thinking.

Candidates who reflected on their design thinking were able to show how their design ideas could be further refined / extended. This might be evident in how the design evolved from the use of initiating sources, showing a range of variations within ideas, or by introducing new ideas into their design to help them further explore the possibilities of the design idea.

Digital submissions should be checked to ensure that they are able to be read by the assessor. Consideration should also be given to the readability of work that is scanned or photocopied from the originals. Digital methods of submission are only beneficial when the work has been digitally created - not just digitally presented.

Grade awarding

Candidates who were awarded Achievement commonly:

- communicated aesthetic aspects of their designs through a limited choice of visual communication techniques and some indication of colour and shadow.
- communicated limited functionality often showing only basic function such as floor plans or simple construction in spatial designs and simple assembly and ergonomic indications in product design.
- generated design ideas by researching existing designs or loosely related to ideation.
- generated design ideas which were generic or predictable in relation to the context.

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

- Produced only a single design idea or communicated no evidence of either aesthetic or functional qualities, or both, in their design(s).
- Did not communicate design ideas.
- Did not present a recognisable design for a given context and/or lacked evidence of their design process.

Candidates who were awarded Achievement with Merit commonly:

- Used a range of related drawings (or families of drawings) to show their idea from different viewpoints. For example: in spatial designs candidate explored function using floor plans and a combination of other techniques such as sections, details, framing; in product design this was usually done with detailing and consideration of ergonomic and/or anthropometric aspects of the context.
- Used visual communication strategies to present ideas with clarity, allowing the marker to understand the idea(s) in greater depth.
- Generated and communicated divergent design ideas that were often creative and unusual. These were generated in a range of ways.

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- Linked design ideas to the design context while also challenging the context in some way.

Candidates who were awarded Achievement with Excellence commonly:

- Explored the functional and aesthetic qualities of their design in depth and a way that was informative and easy to follow.
- Showed that they could reflect on their design thinking and where that design might go next through the generation and consideration of their design ideas. Some candidates did this at early stages of their process through the direction that their ideation gave their designs, while for others this happened in the later stages with how their design ideas evolved or grew based on their design thinking.

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

Examinations

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

Many submissions are now being made in CAD, which means drawings often look good at first glance. However, it is evident that some candidates appeared to rely too heavily on the software to do the thinking for them and made errors and / or missed elements as a result. A good understanding of the fundamentals of working drawings is required to produce drawings that meet the standard.

Observations

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.

Although digital submissions work well for CAD based evidence, the use of appropriate, standard scales e.g. 1:2, 1:5, 1:10, 1:20, 1:50 etc still needs to be applied. Some CAD work generated random scales e.g. 1:97.382. Printing PDF's to fit to page resulted in scale errors when checked by the markers.

The drawings for communicating details of the design at Level 2 must be communicated through 2-dimensional (not 3–dimensional) means.

Some candidates either did not label their section planes or the resulting sections correctly. Often the section view was too small to show detail, or the candidate did not show sufficient understanding of the construction of a building to create an accurate section view drawing.

A 1:50 scale for spatial design buildings shows a good amount of information and allows for clear communication of design features and cladding materials.

Construction details were often referenced incorrectly. In some cases, the material of the detail was incorrect, in others the place where the detail was referenced from was incorrect (not from a section or plan).

Some of the product submissions lacked the complexity needed in the design to allow students to produce a set of working drawings at this level. This meant that section views did not add to the understanding of the product and were often unnecessary.

Cross hatching of sections was also an issue for some of submissions.

Many CAD submissions had obviously used 'auto dimension' which significantly over dimensioned the drawing. Many architectural submissions did not have any dimensioning on elevations.

NSEW symbols were often left out and/or not referenced correctly on the elevations.

Some schools are using CAD well and candidates are producing a quality set of working drawings. Many schools are still using traditional drafting/technical drawings methods and are achieving merit and excellent grades: with work that is accurate, clear, concise and detailed.

Grade awarding

Candidates who were awarded Achievement commonly:

- produced a set of interconnected 2D instrumental working drawings with technical details.
- showing complex visual communication. Most commonly this involved a plan, elevations and a clearly related cross section.
- linked / related pages 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 e.g. specifying the purpose of a room in their plans and/or materiality in their elevations for spatial design; specifying shape and componentry for product design.
- produced several pages of drawings of all the components of their design but limited 2-D drawing of the assembled design and no section of the assembled project, to give the marker any indication how the components fitted together.

Candidates whose work was assessed as Not Achieved commonly:

- 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, an end elevation and a sectional view (lacking any technical details of distinct parts and their assembly). Spatial designs lacked communication about functionality and / or provide no information about materiality in the elevations.
- produced drawings that lacked the information required to connect one drawing to the next. e.g. poor use of the title block, page sequence or linking the north symbol to elevations.

Candidates who were awarded Achievement with Merit commonly:

- communicated technical details of the design with clarity. Drawings showed construction information or complex detailing that related to the design.
- communicated details clearly and accurately with appropriate use and application of tools to link the pages. For example, using cutting planes to link to sectional views, NSEW symbols to link plans to elevations and using effective project descriptions and page sequence numbering in the title blocks.
- 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:

- communicated the technical details of their design effectively.
- presented drawings of a high standard using appropriate conventions.
- produced drawings that were accurate drawn and included all the information and details required to understand the design. These drawing often included sectional views with enlarged details.
- used details that related accurately to the design and were consistent with information communicated in the other linked drawings.
- communicated relevant details to inform the design and support the overall coherency of the set of drawings.

91339: Produce instrumental perspective projection drawings to communicate design ideas

Examinations

Candidates are required to produce instrumental perspective projection drawings that show their own 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-level lines; ground-level lines; vanishing points; and height lines, including the set-up of the plan and elevations to indicate proof of heights.

Evidence for this achievement standard can be generated using either traditional drawing equipment or computer applications.

Observations

Candidates 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.

Common issues that prevented candidates achieving at the higher levels were related to not using the height line correctly. While the height line may have been projected accurately, the heights were not then projected around the object correctly to plot the required points. Some candidates confused the PP and ELL. Placement of the PP at the front of the plan often resulted in a very small perspective making it difficult to communicate details clearly. To achieve with excellence, candidates needed to select a viewpoint that effectively communicated their design. Some candidates clearly 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 meant they were able to complete a drawing that did not distort their design and allowed the drawing to be a size that enabled the design features to be shown clearly and in detail. Working on A2 size paper is helpful, although candidates should be encouraged to do a draft or practice layout. That way they can seek guidance as to whether their projection is going to be accurate and 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, printed, and submitted via the portfolio envelope. This is perfectly fine if the perspective projection principles and set-up are followed, and the features labelled (e.g. picture plane and eye-level-line). Successful candidates often presented two pages – 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, candidates must consider the line-weights of the final perspective drawing as thickness of lines can be a factor in showing the clarity of detail. They must also 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 enhancement of the perspective image is not part of this standard.

Grade awarding

Candidates who were awarded Achievement commonly:

- produced an instrumental perspective drawing that applied the principles of perspective projection correctly, i.e. 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.

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

• produced a 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 SP when setting up an angular perspective projection.

- did not project the relationship between the station point, picture plane and vanishing points correctly.
- did not have an elevation or labelled features on a height line to project the objects height from.
- produced a 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.
- did not present their own design ideas (drawings were a drawing task).
- produced a freehand perspective sketch or a computer-generated perspective image with no projection, e.g. a SketchUp model.

Candidates who were awarded Achievement with Merit commonly:

- 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 using 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 clearly project 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.
- presented evidence that was skilfully drawn in terms of clear and effective line work.
- produced a drawing of sufficient scale / size so detail could be clearly 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.

- presented a perspective drawing that was highly informative and visually realistic, including the overall form and structure of the building or object.
- used the picture plane and viewpoint 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.
- showed a high level of drawing skill to communicate the design information; techniques such as exploded views or showing additional interior information through the windows or removing some exterior cladding to show wall framing was effective.

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2020 (PDF, 248KB)

<u>2019 (PDF, 129KB)</u>

<u>2018 (PDF, 119KB)</u>

<u>2017 (PDF, 60KB)</u>

<u>2016 (PDF, 233KB)</u>

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