Design marking guide

External assessment

Examination — Design challenge (28 marks)

Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

2. represent ideas, and a sustainable design concept using schematic sketching and/or ideation sketching in the develop phase

4. devise ideas using divergent thinking strategies in response to a redesign problem in the develop phase

5. synthesise ideas and sustainability information to propose a sustainable design concept in the develop phase

6. evaluate the strengths, limitations and implications of ideas against design criteria and make refinements.

Note: Objectives 1, 3 and 7 are not covered in this assessment.

Purpose

This document is an External assessment marking guide (EAMG).

The EAMG:

- Provides a tool for calibrating external assessment markers to ensure reliability of results

- Indicates the correlation, for each question, between mark allocation and qualities at each level of the mark range

- Informs schools and students about how marks are matched to qualities in student responses.

Mark allocation

Where a response does not meet any of the descriptors for a question or a criterion, a mark of '0' will be recorded. Where no response to a question has been made, a mark of 'N' will be recorded.

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Criterion: Devising ideas using divergent thinking in response to a redesign problem	
The response:	**M**
• shows a wide range of ideas, from more than one point of view, perceptively devised with unique, credible and detailed attributes in response to the problem	9
• shows a range of ideas, from more than one point of view, perceptively devised with unique, credible and detailed attributes in response to the problem	8
• shows a wide range of ideas, from more than one point of view, purposefully devised with unique, credible and detailed attributes in response to the problem	7
• shows a range of ideas, from more than one point of view, purposefully devised with credible and detailed attributes in response to the problem	6
• shows a range of ideas purposefully devised with credible and detailed attributes in response to the problem	5
• shows a range of ideas appropriately devised with credible attributes in response to the problem	4
• shows ideas appropriately devised with credible attributes in response to aspects of the problem **OR** • shows an idea with credible and detailed attributes in response to the problem	3
• shows ideas superficially devised in response to the problem **OR** • shows an idea with credible attributes in response to aspects of the problem	2
• shows one or more ideas in response to aspects of the problem	1
• does not satisfy any of the descriptors above.	0

Criterion: Evaluating ideas and making refinements	
The response:	**M**
• shows discerning refinement of ideas based on judgments about the critical strengths, limitations and implications of attributes of ideas against all design criteria	6
• shows effective refinement of ideas based on judgments about the logical strengths and limitations of ideas against all design criteria	5
• shows adequate refinement of ideas based on judgments about the feasible strengths and limitations of ideas against most design criteria	4
• shows adequate refinement of ideas based on judgments about the feasible strengths and limitations of ideas against some design criteria	3
• shows superficial refinement of ideas based on identified strengths or limitations of ideas against some design criteria	2
• shows changes to ideas related to the design criteria	1
• does not satisfy any of the descriptors above.	0

Criterion: Synthesising to propose a design concept	
The response:	**M**

• shows an innovative design concept that
  – includes a coherent and logical combination of attributes of multiple ideas and stimulus information
  – satisfies all design criteria
	7

• shows an innovative design concept that
  – includes a logical combination of attributes of multiple ideas and stimulus information
  – satisfies all design criteria
	6

• shows a credible design concept that
  – includes a logical combination of ideas and stimulus information
  – satisfies most design criteria
	5

• shows a credible design concept that
  – includes a simple combination of ideas and stimulus information
  – satisfies most design criteria
 	
OR
 	
• shows an innovative design concept that
  – includes a simple combination of ideas and stimulus information
  – satisfies some design criteria
	4

• shows a design concept that
  – includes a simple combination of ideas and stimulus information
  – satisfies some design criteria
	3

• shows a design concept that
  – includes a simple idea and stimulus information
  – satisfies some design criteria
	2

• shows a partial design concept that satisfies some design criteria	1
• does not satisfy any of the descriptors above.	0

Criterion: Representing ideas and a design concept	
The response:	**M**

• indicates sophisticated use of
  – elements and principles of visual communication to differentiate between critical and non-critical attributes in ideation and schematic sketching of ideas and a design concept
  – sequences of related sketches to easily and readily show the progression of understanding of ideas
	6

• indicates considered use of
  – elements and principles of visual communication to differentiate between attributes in ideation and schematic sketching of ideas and a design concept
  – sequences of related sketches to show the progression of understanding of ideas
	5

• indicates appropriate use of
  – ideation and schematic sketching of ideas and a design concept with labels and either 1 of the following
    ▪ elements and principles of visual communication to differentiate between attributes
    ▪ sketches that show the progression of understanding of ideas
	4

• indicates appropriate use of
  – ideation sketching and schematic sketching
  – labels
	3

• indicates cursory use of
  – ideation or schematic sketching
  – labels
	2

• indicates illogical use of unclear ideation or schematic sketching	1
• does not satisfy any of the descriptors above.	0