Design 2021

FA2 Assessment Instrument

February 2021

Project (35%)
Assessment objectives

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

1. describe the features that define a Human Centred Design (HCD) problem and design criteria based on stakeholders' requirements and principles of good design

2. represent ideas, a design concept and HCD information using ideation sketching, schematic sketching and low-fidelity prototyping in the explore and develop phases

3. analyse needs and wants using primary data about stakeholders and secondary data about existing designs and HCD information

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

5. synthesise ideas and HCD information to propose a HCD concept in the develop phase

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

7. make decisions about and use visual, written and spoken communication to present a design brief and design proposal for stakeholders.

Subject	Design	Instrument no.	FA2
Technique	Project		
Unit	Unit 1: Design in Practice		
Topic	Topic 2: Design Process		
Conditions			
Duration	5 weeks		
Mode	Multimodal	Length	• Part A: 10–12 A3 pages • Part B: one A3 page (maximum 400 words) • Part C: two A3 pages
Individual/ group	Individual	Submission Date	Wed 28th April
Resources available	Design Lab equipment, internet, Nelson Design Book		

Context

Many people are interested in photography. Whether it is photos of holiday destinations, family and friends or just your pet; photography brings pleasure to the young and the old alike. Elderly people, however, can find it difficult to use small, overly complicated cameras or even modern smartphones, to take pictures and video. Most modern cameras have been designed for younger adults and this often means that for older people, they are not 'fit for purpose'.

The context of this project is human-centred design (HCD). Fundamental to HCD is the principle that a designer considers human needs and wants to be a higher priority than other influences throughout the design process. The success of designs will depend on effectively considering the attitudes, expectations, motivations and experiences of the elderly.

Task

Kodak has decided to launch a new range of digital cameras aimed specifically at the elderly. They believe that it will help them to take advantage of an untapped market, in the same way that companies like KISA have successfully marketed phones for the elderly. Consider changes to the functionality and appearance of the camera. Use analysis of age-related dexterity to identify ergonomic and functional design considerations. The aesthetic styling of the camera should appeal to older people, be safe to use, affordable and suitable for both male and female users.

To complete this task, you must:

Part A — visual documentation of the design process, including
- representation of ideas, a design concept and Human Centred Design (HCD) information using drawing and low-fidelity prototyping in the explore and develop phases
- analysis of the needs and wants of an identified stakeholder using
  - primary data, e.g. interviews with stakeholders
  - secondary data, e.g. analysis of existing designs and HCD information
- ideas devised in response to the HCD problem using divergent thinking strategies in the develop phase of the design process
- synthesis of ideas and HCD information to propose a design concept
- evaluation of the strengths, limitations and implications of ideas and a design concept against the design criteria to make refinements that improve ideas, including:
  - written or spoken notes referenced to relevant drawings and low-fidelity prototypes

- changes or amendments to drawings and/or low-fidelity prototypes
- evidence of primary sources, acknowledgment of secondary sources (references for images and text) and documentation of progressive development.

Part B — written design brief and criteria, including

- description of
  - the features that define the HCD problem
  - design criteria based on stakeholders' requirements and the principles of good design
- communication using written features, design language and conventions.

Part C —

- evaluation of how well the design concept satisfies the design criteria
- visual presentation of the design concept using a computer generated model

Stimulus

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Checkpoints

☐ Term 1 Week 7: Teacher check in on student progress

Criterion	Marks allocated	Result
Exploring Assessment objectives 1, 3	10	
Devising Assessment objectives 4	7	
Synthesising and evaluating Assessment objectives 5, 6	10	
Representing and communicating Assessment objectives 2, 7	8	
Total	**35**	

Authentication strategies

- Students must acknowledge all sources.

- The teacher will collect copies of the student response and monitor at key junctures.

- The teacher will consult with each student as they develop the response.

Scaffolding
In Design, a project involves students applying the explore and develop phases of the design process as shown in the figure below.
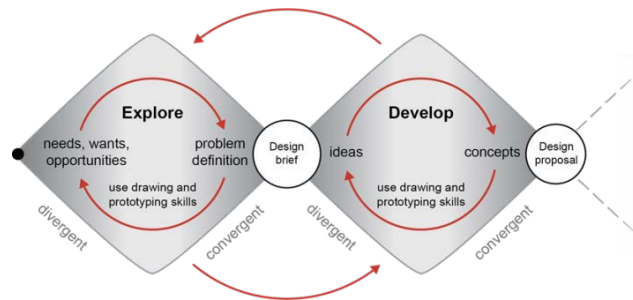
Instrument-specific marking guide (ISMG)

Criterion: Exploring

Assessment objectives

1. describe the features that define a HCD problem and design criteria based on stakeholders' requirements and principles of good design

3. analyse needs and wants using primary data about stakeholders and secondary data about existing designs and HCD information

The student work has the following characteristics:	Marks
• discerning description of the features that define a HCD problem and essential design criteria based on stakeholders' requirements and principles of good design • insightful analysis of needs and wants using relevant primary data about stakeholders and secondary data about existing designs and HCD information to identify the significant features, constraints and the relationships between them.	9–10
• effective description of the features that define a HCD problem and design criteria based on stakeholders' requirements and principles of good design • considered analysis of needs and wants using relevant primary data about stakeholders and secondary data about existing designs and HCD information to identify valid features, constraints and the relationships between them.	7–8
• adequate description of the features that define a HCD problem and some design criteria based on stakeholders' requirements and principles of good design • appropriate analysis of needs and wants using primary data about stakeholders and secondary data about existing designs and HCD information to identify some features, constraints and the relationships between them.	5–6
• superficial description of a HCD problem and some design criteria • superficial analysis of needs and wants using HCD information to identify partial features.	3–4
• description of aspects of a HCD problem • statements about needs and/or wants.	1–2
• does not satisfy any of the descriptors above.	0

Criterion: **Devising**

Assessment objectives

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

The student work has the following characteristics:	Marks
• multiple ideas perceptively devised from different points of view — with each idea incorporating unique, credible and detailed attributes — using divergent thinking strategies in response to the HCD problem in the develop phase.	6–7
• ideas purposefully devised — with each idea incorporating unique, credible and detailed attributes — using a divergent thinking strategy in response to the HCD problem in the develop phase.	4–5
• ideas appropriately devised — with each idea incorporating credible attributes in response to the HCD problem in the develop phase.	2–3
• ideas disjointedly devised in response to aspects of the HCD problem.	1
• does not satisfy any of the descriptors above.	0

Criterion: **Synthesising and evaluating**

Assessment objectives

5. synthesise ideas and HCD information to propose a HCD concept in the develop phase

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

The student work has the following characteristics:	Marks
• coherent and logical synthesis by combining attributes of multiple ideas and HCD information to propose an innovative HCD concept in the develop phase • critical evaluation of the strengths, limitations and implications of ideas and a HCD concept against design criteria to make discerning refinements.	9–10
• logical synthesis by combining ideas and HCD information to propose a credible HCD concept in the develop phase • reasoned evaluation of the strengths, limitations and implications of ideas and the HCD concept against design criteria to make effective refinements.	7–8
• simple synthesis by combining ideas and HCD information to propose a HCD concept • feasible evaluation of the strengths and limitations of ideas and the HCD concept against some design criteria to make adequate refinements.	5–6
• rudimentary synthesis of ideas to propose a partial HCD concept • superficial evaluation of ideas and the HCD concept against some design criteria.	3–4
• unclear combination of ideas • make statements about ideas or the HCD concept.	1–2
• does not satisfy any of the descriptors above.	0

Criterion: **Representing and communicating**

Assessment objectives

2. represent ideas, a design concept and HCD information using ideation sketching, schematic sketching and low-fidelity prototyping in the explore and develop phases

7. make decisions about and use visual, written and spoken communication to present a design brief and design proposal to stakeholders

The student work has the following characteristics:	Marks

• sophisticated representation of ideas, a design concept and HCD information using fluent sequences of ideation sketching, schematic sketching and low-fidelity prototyping to progress understanding in the explore and develop phases
• discerning decision-making about, and fluent use of,
  – spoken features, design-specific vocabulary and visual elements and principles to present a design proposal for a live or virtual stakeholder audience
  – written conventions, features and design-specific language to present a design brief for stakeholders.
	7–8

• considered representation of ideas, a design concept and HCD information using proficient ideation sketching, schematic sketching and low-fidelity prototyping to progress understanding in the explore and develop phases
• effective decision-making about, and proficient use of,
  – spoken features, design-specific vocabulary and visual elements and principles to present a design proposal for a live or virtual stakeholder audience
  – written conventions, features and design-specific language to present a design brief for stakeholders.
	5–6

• appropriate representation of ideas, a design concept and HCD information using ideation sketching, schematic sketching and low-fidelity prototyping in the explore and develop phases
• appropriate decision-making about, and use of,
  – spoken features and visual elements and principles to present a design proposal
  – written features to present a design brief.
	3–4

• cursory representation of ideas and information using unclear sketching or low-fidelity prototyping in the design process
• variable decision-making, and inconsistent use of,
  – spoken features or visual elements
  – written conventions.
	1–2

• does not satisfy any of the descriptors above.	0