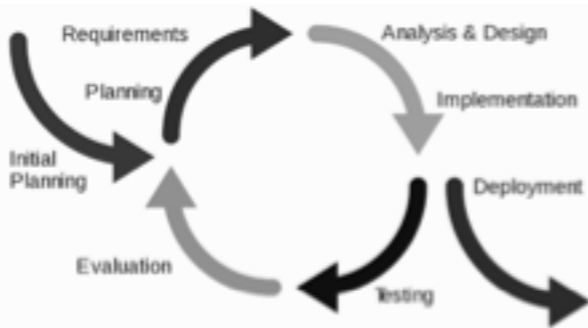


Y10-KO1-GCSE DESIGN AND TECHNOLOGY: DESIGN STRATEGIES

A DESIGN FIXATION

Key information	
1	<ul style="list-style-type: none"> This is a common condition for designers. They become stuck in a rut and can only produce a range of similar designs, blinded to alternatives and ideas available. It can be caused by the fear of making mistakes or taking risk. Design strategies are used to solve design fixation.

B ITERATIVE DESIGN

Process	Diagram
1 A proposal is made.	
2 It is then planned and developed to meet the brief.	
3 It is analysed and refined.	
4 It is tested and modelled.	
5 It is evaluated against the brief. Many versions fail but that then informs development to make the idea better.	
6 The cycle then repeats. If the product is successful, it is then made and sold.	

C ITERATIVE DESIGN

Advantages	Disadvantages
1 Consistent testing helps solve problems earlier.	Designers can lose sight of "the big picture".
2 Constant feedbacks.	Time consuming.
3 Easy evidence of progress.	

D USER-CENTRED DESIGN

Key information	
1	This is when designs are based on fulfilling the needs and wants of the users/clients at every stage of the design process.
2	Questioning and testing is ongoing and is often found through interviews, questionnaires, and surveys.

E USER-CENTRED DESIGN

	Advantages	Disadvantages
1	User feels listened to.	Requires extra time to get the customer feedbacks.
2	It makes sure the products meets the user needs.	If focused on just one person, it can limit the products' appeal to others.

F SYSTEMS APPROACH

Key information	
1	It is usually used for electronic products.
2	It often uses diagrams to show systems in a visual format.
3	It requires logical and ordered method to plan the layout for the correct sequence of inputs, processes, outputs and/or other interactions in an electronic or mechanical system.

G SYSTEMS APPROACH

	Advantages	Disadvantages
1	Does not need specialist knowledge.	Sometimes over-simplifies stages.
2	Easy to communicate stages and to find errors.	Can lead to unnecessary stages.

H COLLABORATIVE APPROACH

Key information	
1	Working with others to share data and solving problems and coming up with design proposals can help with creativity.
2	Numerous companies work in teams, as this has shown to improve the range and quality of ideas produced.

I COLLABORATIVE APPROACH

	Advantages	Disadvantages
1	Gets multiple opinions and a range of views which can produce more ideas.	Can be difficult to design with opposing views.
2	Designers can feed off the ideas of colleagues and inspire others around them.	Can be difficult to find time to communicate with multiple people.