



Professional Development Service for Teachers | An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí



An Roinn Oideachais
Department of Education



LEAVING CERTIFICATE
COMPUTER SCIENCE

National Workshop 5



Day 2, Session 2

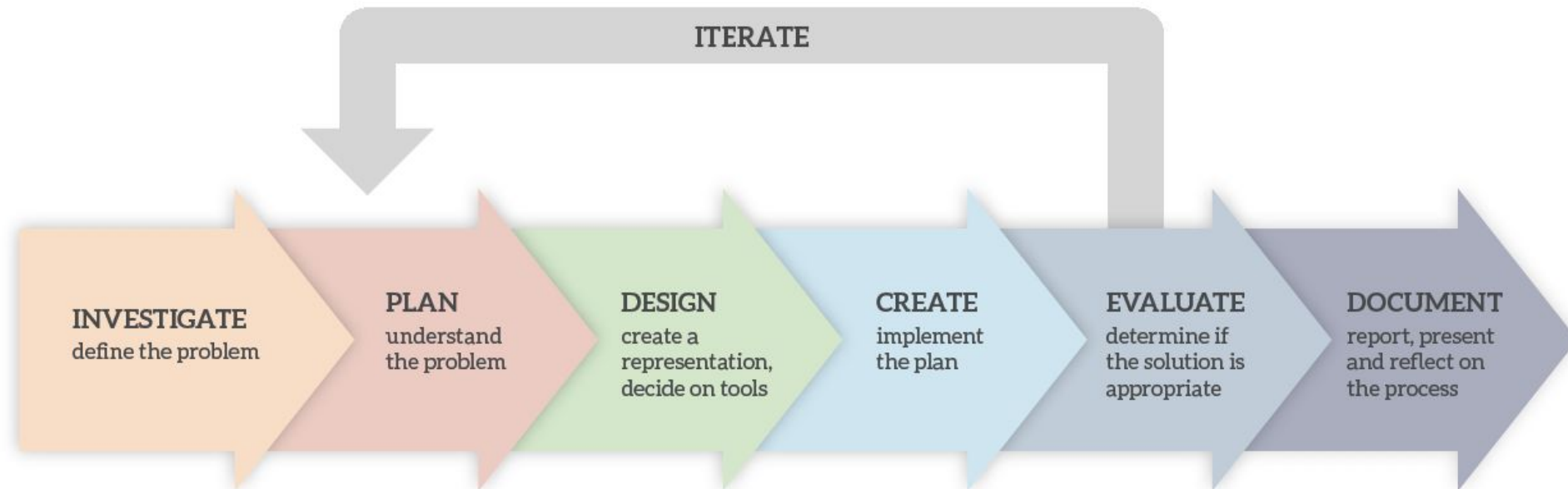
ALT1 – Project Design

By the end of this session participants will have:

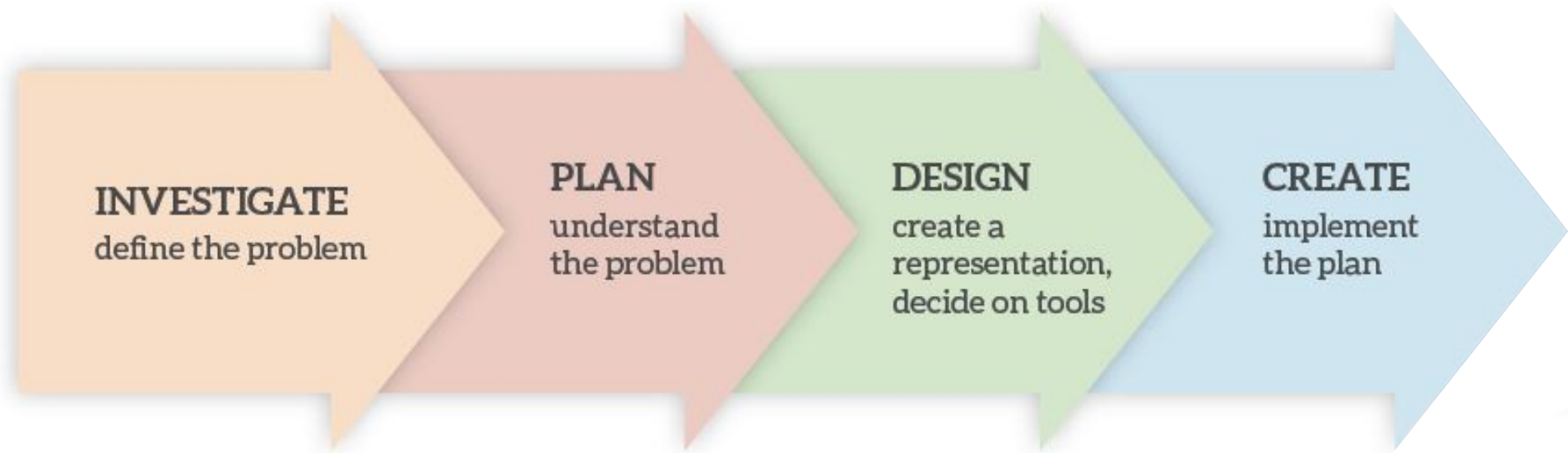
- Experienced the design phase for an original ALT1 project.
- Enhanced their team working, communication and collaboration skills.
- Acquired additional skills, knowledge and ideas on how they will facilitate ALT1 in their own classrooms.



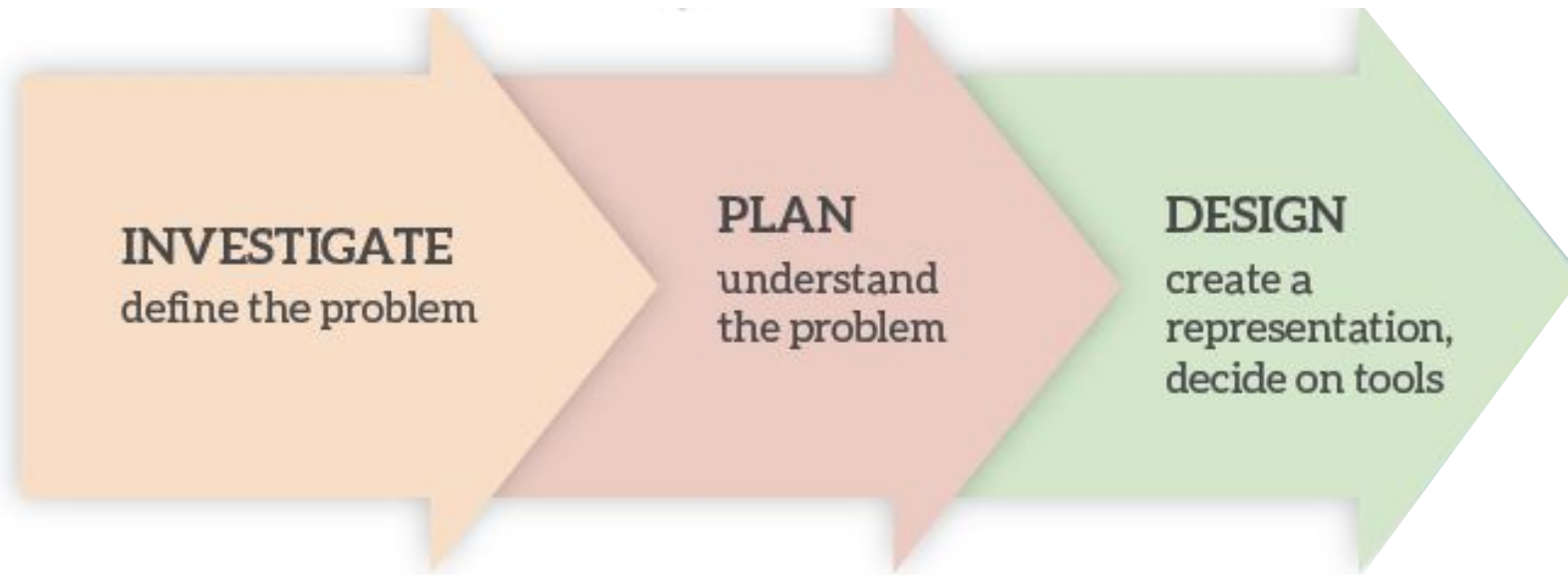
Group Activity
Groups will work on the Design phase of ALT1



The Design Process



The Design Process



3

DESIGN
create a
representation,
decide on tools

Map

Diagram

Storyboard

Mock-up

Wireframe

Paper Prototype

Learning Outcomes

Students learn about:	Students should be able to:
Information systems User-centred design Web design File systems and relational databases Design process	3.1 understand and list user needs/requirements before defining a solution 3.2 create a basic relational database to store and retrieve a variety of forms of data types 3.3 use appropriate programming languages to develop an interactive website that can display information from a database that meets a set of users' needs

Learning Outcomes (don't try and do too much!)

		S1: Designing and developing	
		Design process	1.19 identify features of both staged and iterative design and development processes
		Working in a team. assigning	1.20 collaborate and assign roles and responsibilities within a computing task
1.15 consider the interacting universal design factors	S2: Evaluation and testing		2.19 test solutions and decisions to determine their short-term and long-term outcomes
	Debugging		2.20 identify and fix/debug warnings and errors in computer code and modify as required
	Testing: Unit test, Function test , System test		2.21 critically reflect on and identify limitations in completed code and suggest possible improvements
1.16 compare two different designs			2.22 explain the different stages in software testing
1.17 describe the lives of people with special needs		2.2	use a range of methods for identifying patterns and abstract common features
1.18 recognise the diverse requirements of different technologies		2.3	implement modular design to develop hardware or software modules that perform a specific function
		2.4	illustrate examples of abstract models

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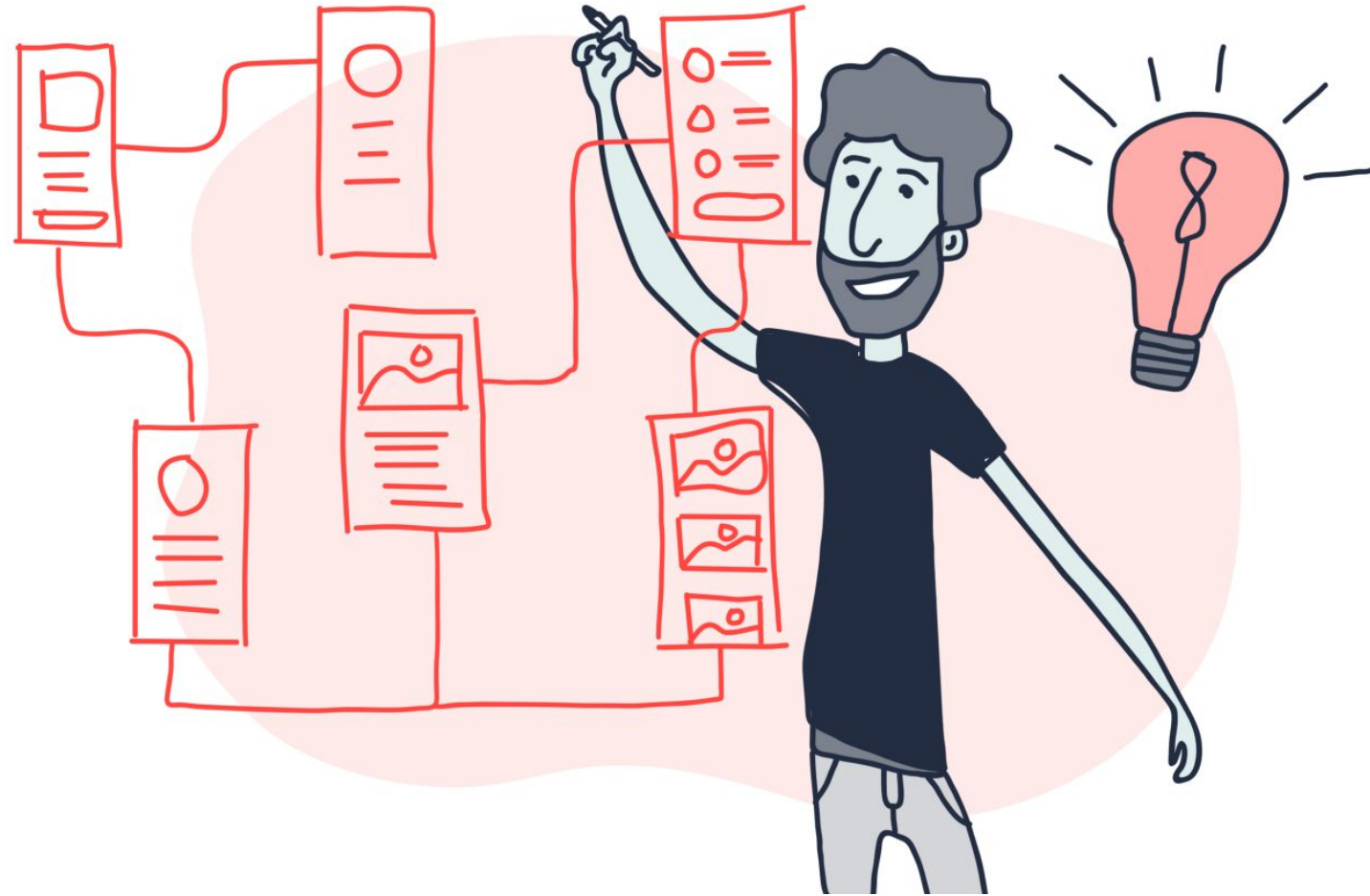
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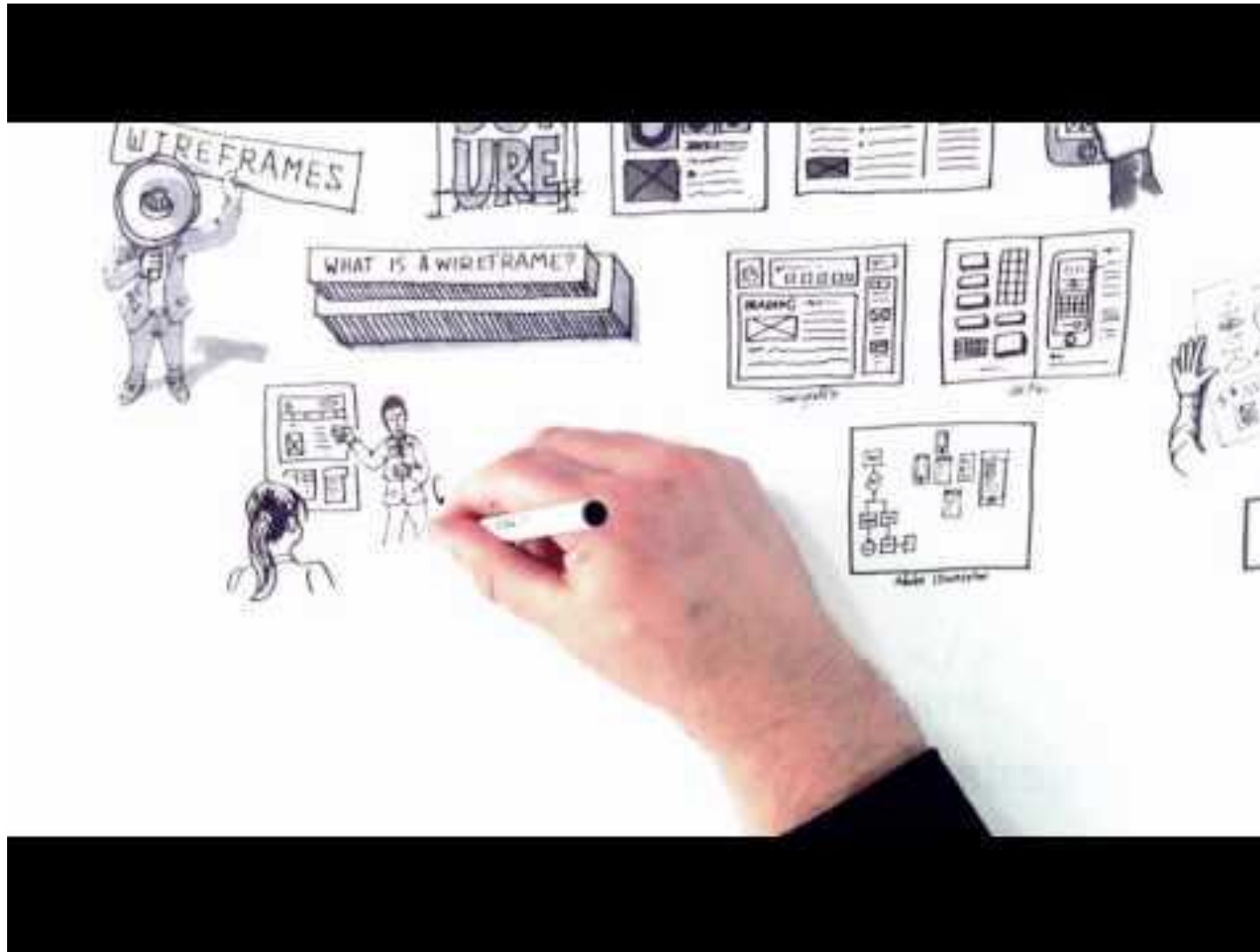
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Wireframes



Wireframing



<https://www.youtube.com/watch?v=8-vTd7GRk-w&feature=youtu.be>

Wireframing



<https://www.youtube.com/watch?v=8-vTd7GRk-w&feature=youtu.be>

Wireframing



<https://www.youtube.com/watch?v=qpH7-KFWZRI&t=29s>

Wireframing Benefits

Structure

Layout (hierarchy)

Content

Functionality

Refinement

Understanding

Wireframing Tips

Keep them Simple
Use a Grid
Short, Sharp Annotations
Encourage Feedback

Introduction to digital wireframing tool

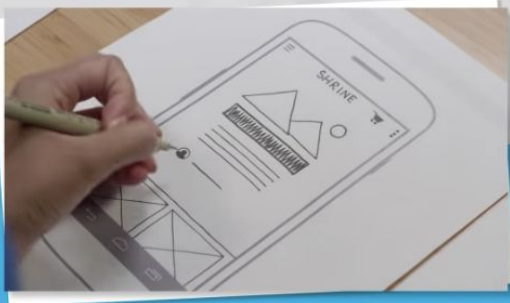


Breakout Task: Create a wireframe for your planned ALT 1

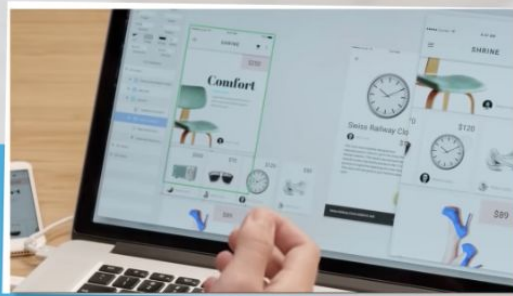




Rapid Prototyping



Sketching &
Paper
Prototyping



Digital
Prototyping



Native
Prototyping

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<https://www.youtube.com/watch?v=JMjozqJS44M&feature=youtu.b>

Presentation & Debrief

What did you do?

How did you do it?

What has challenged your thinking?

Problems

Making Links

Which LOs did you use?

How will the backend work?



Roles & Group Dynamics



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