DigiFE Digital Education for Food Entrepreneurs

MODULE 1

Introduction to Design Thinking

Digital Readiness for Agri-Food Entrepreneurship Training: Addressing the Digital Competence of VET Educators

VERSION
ENGLISH

Co-funded by the European Union

2021-2-2IE01-KA220-VET-000048843

Contents

Learning Outcomes

1. Develop an understanding of how to implement the Design Thinking process.
2. Demonstrate an understanding of the five stages of the Design Thinking process and their interdependence.
3. Recognise the application of Design Thinking in the Agri-Food sector and develop an understanding of its benefits.

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1. DigiFE Project Introduction

This module has been developed as part of the Erasmus+ funded project Digital Readiness for Agri-Food Entrepreneurship Training (DigiFE) project (2021-2-2IE01-KA220-VET-00004884).

This project is coordinated by the Atlantic Technological University, Ireland (ATU) in partnership with The Polish Farm Advisory and Training Centre Not-For-Profit, Poland (PFA), CIA Toscana, Italy, (CIA) and Macra na Feirme, Ireland.

The main aim of this project is to review and adapt vocational education and training to meet the digital needs of agri-food entrepreneurs in line with the digital competence framework. The content of these modules has been developed in line with the DigiFE curriculum, which was designed by the project consortium in collaboration with academia, farmers, food producers, and the wider agri-food stakeholders.

2. What is Design Thinking?

- Design thinking is an approach to problem solving which focuses on the person behind the problem and the issue they have.
- It involves being creative to transform difficult challenges into opportunities by developing new, relevant solutions with positive impacts.
- In Agri-Food, this process can be used to understand the problems consumers face and support the development of counteractive solutions.

> *Design thinking is a human-centered and collaborative approach to problem-solving, using a designed mindset to solve complex problems*
>
> **- TIM BROWN**

(Design for Change, ND; IDEO, ND)

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2.1 Benefits of Design Thinking

This process can be applied in various contexts for designing and developing items such as:

- Learning experiences
- Curricula
- Learning environments and spaces
- Education programs
- System strategies
- Policies and plans

(The Knowledge Academy, ND; Slash, 2023)

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Benefits of Design Thinking

Design Thinking has many benefits, such as:

Increased empathy →	Helps understand customer needs
Better communication →	Encourages collaboration with others
Improved problem identification →	Helps to identify root problems
Increased innovation →	Supports creativity and new techniques
Better alignment with business's goals →	Focuses on the user's wants and needs
Improved employee engagement →	Encourages collaboration and creativity
Earlier risk identification and counteraction →	Prototyping and testing solutions can solve issues before they arise

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(The Knowledge Academy, ND; Slash, 2023)

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2.2 Elements to consider in Design Thinking

Elements to be aware of when using Design Thinking:

- Try to empathise with users as much as possible.
- Avoid skipping or rushing through phases.
- Collaborate with others for new perspectives.
- Accept and embrace uncertainty – this is a learning process!
- Be aware of the impact and value of your actions.

(LinkedIn Community, ND)

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3. The 5 stages of Design Thinking

The 5 Stages of the Design Thinking Process:

1. Empathy
2. Define
3. Ideate
4. Prototype
5. Test

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(Institute of Design at Stanford, ND)

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3.1 Applying Design Thinking in the Agri-Food sector

How to apply Design Thinking in Agri-Food:

- The Design Thinking process can be applied to a wide variety of businesses.
- In the coming slides, each of the Design Thinking stages will be discussed with a specific focus on applying it to agri-food businesses.

(Merve, 2024)

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3.2 Empathy

- During this stage, it is important to set aside biases and work to gain a deeper understanding of the target customers, their needs and wants.
- This stage often involves direct observation and engagement with the users.
- Some activities in the Empathy stage include interviewing users, conducting surveys and questionnaires, and monitoring user behaviours.

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(Gupta, 2023)

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Empathy

Empathy in agri-food:

- Focus on investigating and understanding the behaviours of customers.
- Activities such as Empathy Mapping can help to understand the lifestyle of these customers.
- Focus on trying to delve deeper into what drives and affects customer buying behaviour.

(Merve, 2024)

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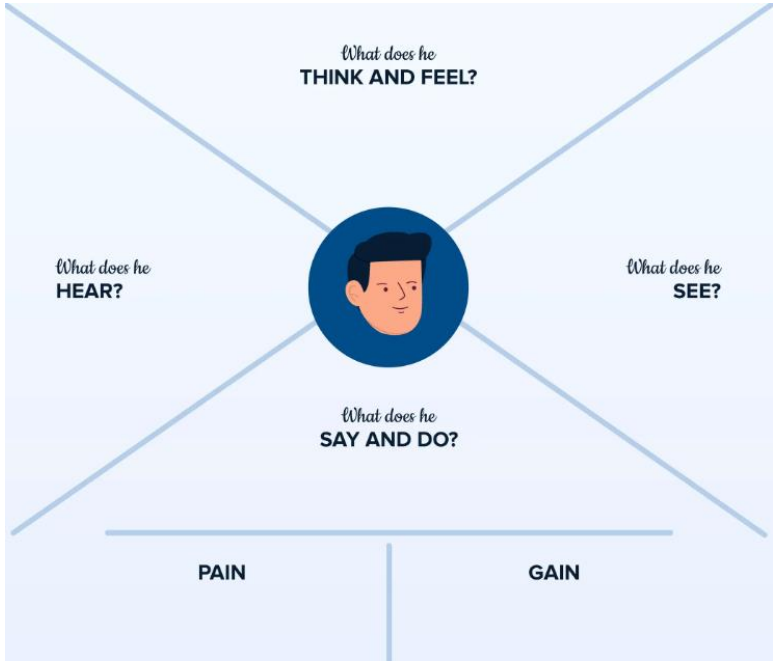
Empathy Map

Tip: Use an empathy map



- An empathy map is a helpful tool to use to further understand your target customers, their behaviours, their problems (pains) and what they could benefit from (gains).

- Developing an empathy map and regularly returning to it in the design thinking process can help to ensure that the wants and needs of customers are at the core of developing the solution.

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(Gupta, 2023)

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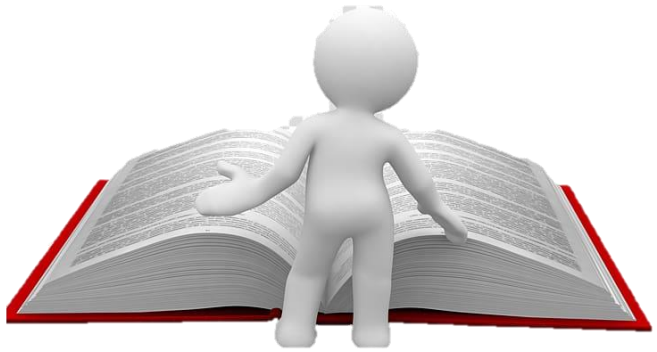
3.3 Define



- The Define stage focuses on analysing the data and information gathered at the Empathy stage.
- This information is used to define the issue and develop a clear problem statement.
- The problem statement should outline the specific challenge(s) faced by the target customers.
- Regularly returning to this in the future will help to keep the focus on the customers' needs and wants.

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(Gupta, 2023)

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Define

Define stage in agri-food:

- Focus on the customer and what challenges they may face (for example; prices may be too high, there may not be enough gluten-free products available to them).
- With current issues in mind, aim to develop a specific problem statement to return to in the future.
- This stage is important and may take some time, but it essential as it is what your next 3 stages rely on.

(Merve, 2024)

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Activities in the Define Stage

Use a Point of View (POV) statement:

- This is a single statement outlining your work. It includes who the target customers are, their needs, and any elements or insights you have gathered.
- The layout of the sentence may look like this;

  "(User) needs to (verb) because (element or insight)"

Conduct a 5 Why's analysis:

- Why does the main problem exist?
- Then ask "Why?" 4 more times to get to the route of why the issue exists

(Lucidspark, ND)

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3.4 Ideate

- The Ideate stage involves exploring different possible solutions to the problem statement defined in the previous stage.
- It is important to try to think outside of the box to develop creative solutions.
- Sketching, brainstorming, developing mind-maps and flow charts are all methods that can help in this process.

(Gupta, 2023)

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Ideate

Ideate stage in agri-food:

- With your defined problem statement, start brainstorming potential solutions and counteractive strategies to improve the situation.
- Collaborating with others at this point will help in gathering a range of different opinions and ideas.
- For the leading ideas, delve into more detail on what they are, what they entail, their positive and negative aspects, and potential issues that may occur in the future if you pursue these routes.

(Merve, 2024)

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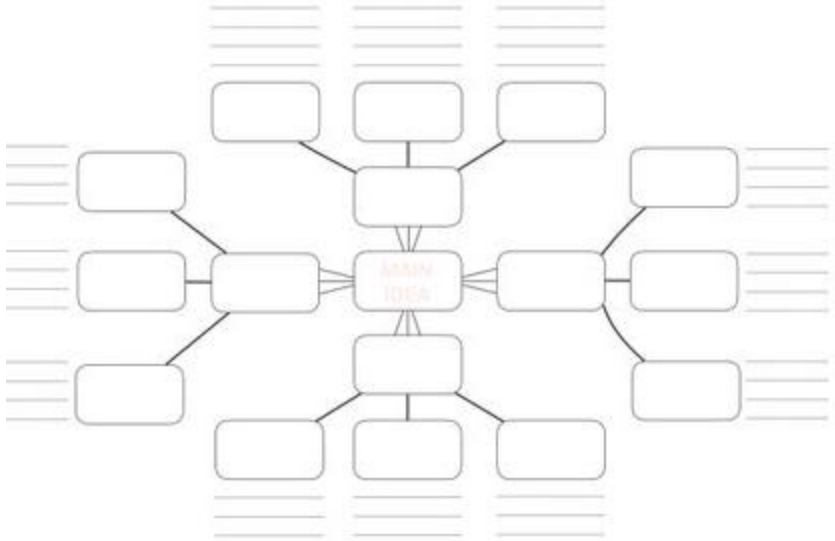
Activities in the Ideate Stage

Mind-mapping:

- This is a non-linear approach to compiling different ideas and thoughts.
- Starting with a blank page, outline all of your ideas and thoughts, and using branches further develop these, highlighting their positive and negative aspects.
- Once this has been developed, it will offer a detailed overview of all of your ideas and support you in identifying the one best suited to the current problem.



(Lucidspark, ND)

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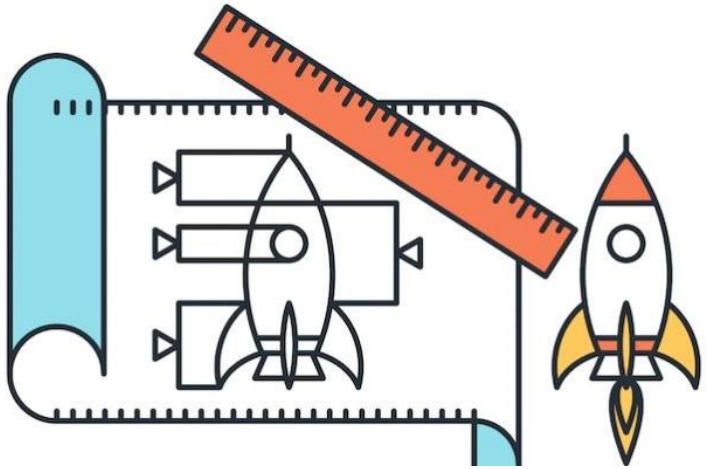
3.5 Prototype



- In this stage, develop a prototype of the potential solution(s) from the Ideate stage
- Prototyping is an inexpensive, quick method of testing if the proposed solution will work and if it is feasible to develop.
- This stage will also help you to identify potential challenges that may arise with the proposed solution(s).

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(Gupta, 2023)

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Prototype

Prototype stage in Agri-Food:

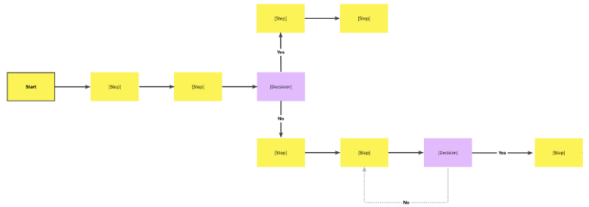
- Develop prototypes of the most-promising solution(s) identified in the Ideate stage.
- Incorporate innovative methods and technologies to develop novel solutions to current issues.
- Using the low-cost prototype models, identify possible changes to improve the final result.

(Merve, 2024)

Activities in the Prototype Stage

Schematic diagramming:

- This involves outlining each step in the process to understand its steps and how it is intended to work.



'Rough and ready' prototyping:

- This comprises of sketching a variety of quick visual representations of the various ideas you have, then further elaborating on them to identify what each will include, how much is may cost, and it's positive and negative aspects.

(Kitch, 2023)

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3.6 Test

- This stage involves testing the developed prototype with real users and customers and gathering real feedback and recommendations.
- The feedback gathered can be used to change and further develop the product to make it better suited to the end users and customers.

(Gupta, 2023)

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Test

Test stage in Agri-Food:

- Generate and try out as many ideas as possible.
- Be aware of current and upcoming market demands in developing and testing your produc
- Gather an array of feedback from different individuals from different backgrounds.
- Do not give up on your first idea if it is not perfect, this process will take time and involve a lot of reviewing and updating the product, so it best suits the end customer.

(Merve, 2024)

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Activities in the Test Stage

Test stage in Agri-Food:

- One of the most well-known approaches of tackling the testing stage of design thinking is known as MoSCoW, meaning;
  - **M** – must have (necessary information to include)
  - **S** – should have (information to consider as advice)
  - **C** – could have (information which could be included)
  - **W** – won't have (all communications and data to avoid)

- When assessing the product/service, address the MosCoW topics to understand the scope of your idea and what it could potentially bring in the future.

(Lipska, 2024)

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Thank You