

SDG2 Future of Food

MM1: From Food Waste to Food Gain



Micro-Module 1: From Food Waste to Food Gain

Research and Development

Lesson 6: Defining the Problem to Solve

Subjects: Art and Design, Agricultural Science, CPSE, Home Economics, SPHE

Lesson Title and Summary: Defining the Problem to Solve

At this stage in the module, learners should have a good understanding of the various problems that food waste causes and the problems that can lead to excessive food waste.

In this lesson, learners will define a single problem that they can solve for a user of their choice. The lessons completed and information discovered up to this point should inform and inspire them in their choices.

Vocabulary: Define, Document, Pain Points, Persona, Problem-solving, Users

In this lesson, the learner will:

- Rely on previous research findings to inform next steps
- Define a problem to solve based on user needs
- Practice human-centered design
- Understand the importance of research
- Collaborate in groups and learn how to negotiate
- Exercise critical thinking and decision making
- Develop evaluation, articulation and writing skills

Materials

- Worksheet: Persona
- Worksheet: Problem Definition
- Markets/pens/pencils, paper



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ACTIVITY INSTRUCTIONS

Activity 1: Who Are We Solving For? (20 mins)

1. Divide the class into groups of 3–4.
2. Distribute the worksheet: persona (one worksheet per group).
3. Learners need to work together to pick a user they feel would benefit from having a food waste solution. They should draw from all previous research to inform their decision.
4. Once they have decided who their user is, complete the worksheet: persona.

NOTE: Learners should continue working in their group formed in this class for the rest of the module.

Activity 2: Problem Definition (30 mins)

1. Continue working in assigned groups.
2. Distribute the worksheet: problem definition.
3. Assist the learners where possible by helping them to write, edit and refine their problem.
4. Learners can share their initial draft problem statements with other groups, encouraging their constructive feedback skills and understanding of collaboration and collective learning.

See also Media Box for links to additional Design Thinking lessons and worksheets

REFLECTIVE EXERCISE: 3-2-1 (10 mins)

- Three things they feel they have learnt from the tasks.
- Two things they found most interesting and would like to explore more.
- One – their opinion they have about the tasks.

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EXTENSION / REDUCTION ACTIVITIES:

Reduction: For a shorter lesson, assign a user to each group instead of allowing the learners to choose. Users might include: a parent, a working professional, a teenager, a chef, a café owner, a supermarket manager, a community gardener.

Learners will then focus on activity 2

Extension: For a longer lesson, as a class, watch the videos provided in the multimedia box before undertaking Activity 2

Option B: Allow more time for both activities. Encourage the class to reflect by sharing their learnings and questions after each activity.

MEDIA BOX: (materials, online video links, extra resources, case studies etc)

Videos:

Defining The Problem <https://youtu.be/2rJRVv-NOaA> [1:25 mins]

How to Write a Great Problem Statement https://youtu.be/cZLgh5JF_a8 [1:36 mins]

For additional support in defining the problem use the worksheets and lesson plans from the standalone unit: Problem to Pitch - Defining the Problem.

This unit is a project based programme taking learners through the process of Design Thinking and has additional activities and worksheets on each stage of the process.

LOCAL TRIP / EXPERTISE / ADDITIONAL WORK AND ASSESSMENTS

Who in your community would benefit from a food waste solution? Recall your homegrown heroes research: is there someone close to home that could be your user?

MM1: L6 WS PERSONA

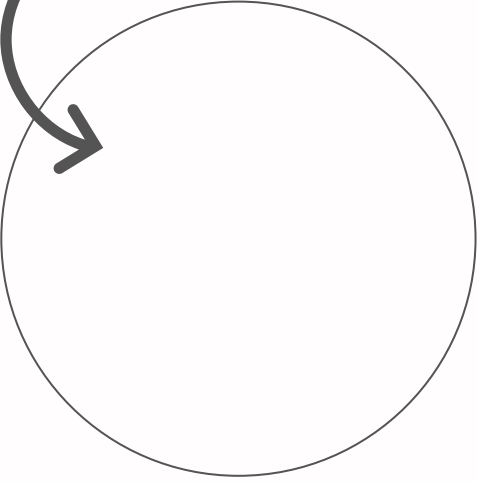


A persona is a simple document that provides an overview of the user or audience you are researching or designing for.

A personal helps you to describe and document aspects of a user such as their occupation, goals, and pain points.

Your persona should be inspired from previous research, e.g. interviews, so that it represents an actual person or group of people who have shared values, skills or concerns.

Add a photo or draw and avatar here



Give them a name

What is their job role or occupation?
What do they do?

List 3 of their pain points when it comes to food waste. These are things that frustrate, challenge, or stop them from doing what they need to.

List 3 of their goals when it comes to food waste. These are aspirations and include things that they would like to achieve, do, or change.

1

1

2

2

3

3

MM1: L6 WS PROBLEM DEFINITION

2 ZERO HUNGER



PROBLEM DEFINITION

For the rest of this module, you will focus on solving a specific food waste problem on behalf of your user so it's important that your definition is understandable and realistic.

This activity will help you to outline, write, edit and, refine the problem so that your team has a clear reference and goal from here on in.

Things to think about:

- What do we know already about the problem? Make a list.
- Can a picture or diagram help ? Try to visually draw or map the problem.
- Who's telling us about this problem? What is their perspective? What else do I need to find out?
- Do we need to speak with anyone else about this problem?
- What do you think the main problem is?
- Does everyone in the group agree? It's important that everyone understands why the problem exists and why it needs to be solved.

Next, work together to define the problem by writing it down in your own words. Follow the format below:

Part 1:

____[insert user name]____ wastes food because they ____[insert reason / challenge]____

Part 2:

How might we solve this problem so that ____[insert user name]____ can or is able to ____[insert an activity / goal that your user wants to achieve]____

Now combine part 1 and part 2 and write it down. This is your final problem definition. Make sure to keep this within your group as you will need to reference it later!