**Training Fiche**

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| **Title** | Design Thinking |
| **Keywords** | Design Process, Creative Thinking, User-Centred, Ideation, Empathy |
| **Provided by** | Found.ation |
| **Language** | English  |
| **Training area** | [x]  **Fundamentals of digital entrepreneurship in microenterprise settings** [x]  **Digital communication and branding**[ ]  **Digital finance**[ ]  **Cybersecurity** |
| **Learning outcomes** | **EntreComp** |
| [x]  Ideas & opportunities [x]  Resources[x]  Into action**Specific competences addressed:**Spotting Opportunities and Ideas, Creativity, Problem-Solving, Persistence, Self-Efficacy  |
| **DigComp** |
| [ ]  Information and data literacy [x]  Communication and collaboration[ ]  Digital content creation[x]  Safety[x]  Problem solving**Specific competences addressed:**Digital Creativity, Data Analysis, Problem-Framing, Digital Literacy for Learning |
| **Proficiency level** |
| [ ]  Level 1 [ ]  Level 2 | [ ]  Level 3[ ]  Level 4 | [ ]  Level 5[x]  Level 6 | [ ]  Level 7[ ]  Level 8 |
| **Foundation** | **Intermediate** | **Advanced** | **Expert** |
| **Description** | MSMEs' Design Thinking training program spans three modules, progressively advancing from EQF levels 3 to 5. Module 1 introduces the core principles and processes of Design Thinking; Module 2 focuses on ideation and prototyping techniques, and Module 3 delves into implementation and impact on business innovation. The program integrates specific competencies from DigComp 2.1 and EntreComp, equipping participants with digital literacy and an entrepreneurial mindset. These modules empower MSME professionals to harness the creative problem-solving potential of Design Thinking for tangible business growth and innovation. |
| **Learning objectives** | [learning objectives for this module; 3 objectives]* **Design for Implementation:** Participants will learn to design and plan effective implementation strategies for integrating Design Thinking principles into their MSMEs' operations. They will be able to develop actionable plans to bring innovative ideas to life.
* **Business Innovation:** This module aims to instil a deep understanding of how Design Thinking can catalyse business innovation. Participants will identify opportunities for innovation within their organisations and explore ways to leverage Design Thinking to drive growth and competitive advantage.
* **Measuring and Evaluating Design Impact:** Learners will acquire the skills to measure and assess the impact of Design Thinking on their business. This includes evaluating the effectiveness of implemented solutions and determining their ROI, enabling data-driven decision-making.
* **Design Thinking in Practice:** Practical application is a key focus, with real-world case studies and exercises to illustrate the application of Design Thinking in various business scenarios. Participants will gain hands-on experience in implementing Design Thinking methodologies in their MSMEs.
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| **Index (3 levels: Module-Unit-Section)** | **Module: Design Thinking****Unit 1**: Introduction to Design ThinkingSection 1.1. What is Design Thinking?Section 1.2. The Design Thinking ProcessSection 1.3 Defining Challenges and Identifying Opportunities**Unit 2**: Ideation and PrototypingSection 2.1. Ideation TechniquesSection 2.2. Concept DevelopmentSection 2.3 Prototyping and Testing**Unit 3**: Implementation and ImpactSection 3.1. Design for ImplementationSection 3.2. Design Thinking and Business InnovationSection 3.3. Measuring and Evaluating Design Impact |
| **Content developed** | **Module: Design Thinking** **Unit 1: Introduction to Design Thinking****Section 1.1.** What is Design Thinking?In this section, participants will gain a foundational understanding of Design Thinking, its origin, and its significance in problem-solving and innovation. The content will cover the following key points:1. **Introduction to Design Thinking:** Define Design Thinking as a human-centred, creative problem-solving approach prioritising empathy, collaboration, and iteration.
2. **Historical Context:** Explore the historical evolution of Design Thinking, including its roots in design and its expansion into various fields, such as business, education, and healthcare.
3. **Core Principles:** Explain the fundamental principles that underlie Design Thinking, including empathy for users, the emphasis on iterative prototyping, and the focus on holistic problem framing.
4. **Differences from Traditional Problem-Solving:** Highlight the critical distinctions between Design Thinking and traditional problem-solving methods, such as analytical problem-solving, by emphasising the user-centric and experimental nature of Design Thinking.
5. **Applications:** Provide examples of how Design Thinking has been successfully applied in various industries and sectors, showcasing its versatility and effectiveness.

**Section 1.2.** The Design Thinking Process In this section, participants will delve into the core elements of the Design Thinking process. It will break down the process into its stages and explore the methodologies involved. The content will cover the following key points:1. **Introduction to the Design Thinking Process:** Explain that the Design Thinking process is a structured approach for problem-solving and innovation typically involving multiple stages.
2. **Stage 1: Empathize with End-Users:** Explore the importance of understanding the needs, behaviours, and motivations of end-users. Participants will learn to conduct user research, interviews, and observations to build empathy for the target audience.
3. **Stage 2: Define the Challenge:** Discuss the significance of defining the problem or challenge in a user-centric manner. Participants will learn how to reframe problems as opportunities and use techniques like problem statements and user personas.
4. **Stage 3: Ideation:** Introduce the ideation phase, where creativity and brainstorming take centre stage. Participants will learn various ideation techniques, such as brainstorming, mind mapping, and the SCAMPER method, to generate multiple innovative ideas.
5. **Stage 4: Prototyping:** Explain the process of translating ideas into tangible prototypes. Participants will explore the different types of prototypes, from low-fidelity sketches to high-fidelity models, and understand how prototyping facilitates testing and refinement.
6. **Stage 5: Testing and Feedback:** Highlight the importance of user testing and feedback collection. Participants will learn how to gather end-user insights and use them to refine and iterate on their prototypes and concepts.
7. **Iterative Nature of Design Thinking:** Emphasize that the Design Thinking process is not linear but iterative, and it may involve revisiting and reworking stages as new insights are gained.

**Section 1.3.** Defining Challenges and Identifying Opportunities In this section, participants will explore the critical initial steps of Design Thinking, which involve framing problems effectively and identifying opportunities for innovation. The content will cover the following key points:1. **Effective Problem Framing:** Stress the importance of framing problems in a way that encourages creative and user-centric solutions. Participants will learn how to craft problem statements that are clear, specific, and oriented toward the needs and experiences of end-users.
2. **Empathy and User-Centricity:** Reiterate the significance of empathy for end-users and its role in understanding their perspectives. Participants will learn how to conduct user interviews, surveys, and observations to gain deep insights into the challenges faced by users.
3. **User Personas:** Introduce the concept of user personas, which are fictional representations of typical users. Participants will learn how to create and use user personas to better empathise with and understand the diverse needs of their target audience.
4. **Problem Reframing Techniques:** Provide techniques and tools for reframing problems and challenges. Discuss approaches such as "How Might We" (HMW) questions, brainstorming sessions, and the use of design briefs to encourage innovative thinking.
5. **Identifying Opportunities:** Explain how Design Thinking not only addresses existing problems but also uncovers opportunities for innovation. Participants will learn to identify unmet needs and potential areas for improvement that may not be immediately apparent.
6. **Real-World Examples:** Share real-world case studies and examples to illustrate effective problem framing and the impact of user-centric thinking in identifying opportunities.

**Unit 2: Ideation and Prototyping** **Section 2.1.** Ideation TechniquesThis section is focused on fostering creativity and idea generation through various ideation techniques. It encourages participants to think outside the box and generate innovative solutions. The content will cover the following key points:1. **Importance of Ideation:** Highlight the significance of ideation as a creative process for generating a wide range of ideas. Discuss how ideation is a crucial step in the Design Thinking process.
2. **Brainstorming:** Introduce the concept of brainstorming as a group activity that encourages participants to share ideas without judgment. Explain the rules of brainstorming, such as deferring judgment and aiming for quantity over quality in the initial stage.
3. **Mind Mapping:** Describe the technique of mind mapping, which helps participants visually organise their thoughts and ideas. Explain how mind maps can be used to explore relationships between concepts and uncover hidden connections.
4. **SCAMPER Method:** Introduce the SCAMPER method, an acronym representing different ways to approach problems creatively: Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, and Reverse. Explain how each element of SCAMPER can be applied to generate innovative ideas.
5. **Storyboarding:** Discuss storyboarding as a technique for visualising ideas and concepts in a narrative format. Explain how storyboards can help in understanding user experiences and scenarios.
6. **Collaborative Ideation:** Emphasize the benefits of collaborative ideation sessions, where diverse perspectives and expertise are brought together to generate various ideas. Discuss how cross-functional teams can enhance creativity.
7. **Creative Constraints:** Explore applying creative constraints or limitations to stimulate innovative thinking. Participants will learn how constraints can lead to unique and inventive solutions.
8. **Practical Exercises:** Incorporate hands-on exercises and activities to allow participants to practice ideation techniques. Encourage them to apply brainstorming, mind mapping, and SCAMPER to real-world challenges.

**Section 2.2.** Concept DevelopmentIn this section, participants will transition from ideation to the structured development of concepts based on the ideas generated in the previous section. The content will cover the following key points: 1. **Concept Development Process:** Introduce the concept development phase as the step following creativity, where participants refine and structure their ideas into actionable concepts and solutions.
2. **User Personas and Needs:** Reiterate the importance of understanding user personas and their needs. Explain how this information serves as the foundation for developing user-centric concepts.
3. **Storyboarding and User Scenarios:** Discuss how storyboarding and creating user scenarios can help visualise how the concepts will address the needs and challenges of the end-users. Participants will learn how to create storyboards that depict the user's journey and interaction with the proposed solutions.
4. **Design Briefs:** Explain the concept of design briefs, which provide a clear and concise outline of the problem, the target audience, and the proposed solution. Participants will learn how to create effective design briefs that guide concept development.
5. **Prioritization and Feasibility:** Discuss prioritising concepts based on feasibility, desirability, and viability criteria. Participants will assess the feasibility of implementing each concept within the organisation's resources and constraints.
6. **Prototyping Considerations:** Introduce the idea that concept development should align with the prototyping phase, emphasising the need to consider how the concept will be translated into tangible prototypes.
7. **Iterative Refinement:** Highlight the iterative nature of concept development in Design Thinking. Participants will understand that concepts may evolve and change as they receive feedback and are tested with end-users.
8. **Practical Application**: Include practical exercises and case studies to allow participants to practice the development of concepts. Encourage them to create concept outlines, storyboards, and design briefs for selected ideas.

**Section 2.3.** Prototyping and TestingIn this section, participants will dive into the practical aspects of turning concepts into tangible prototypes and the importance of user testing in the Design Thinking process. The content will cover the following key points:1. **Introduction to Prototyping:** Define prototyping as creating tangible representations of concepts to visually or functionally test ideas. Emphasise that prototypes can vary in fidelity, from low-fidelity sketches to high-fidelity models.
2. **Types of Prototypes:** Explore the different types of prototypes, including paper prototypes, wireframes, mock-ups, and functional prototypes. Explain the advantages and appropriate use cases for each type.
3. **Prototyping Tools and Software:** Introduce various prototyping tools and software that can aid in creating digital prototypes. Participants will learn about tools like Adobe XD, Sketch, and Figma.
4. **User Testing and Feedback:** Stress the importance of involving end-users in the testing process. Explain how user testing helps identify usability issues, gather feedback, and validate the design's effectiveness.
5. **Creating Test Scenarios:** Discuss how to design test scenarios and tasks for user testing. Participants will learn how to structure user testing sessions to gather specific insights.
6. **Iterative Prototyping:** Emphasize that the process is iterative, meaning that prototypes are refined based on user feedback. Highlight the value of making continuous improvements to the design.
7. **Usability Principles:** Introduce fundamental usability principles, such as simplicity, consistency, and feedback, which participants should consider when creating and testing prototypes.
8. **Feedback Collection and Analysis:** Explain how to collect user feedback, document observations, and analyse the results of user testing sessions. Discuss techniques for synthesising and prioritising feedback.
9. **Refinement and Iteration:** Stress the importance of using user feedback to refine prototypes. Encourage participants to iterate and improve their designs based on the testing results.
10. **Practical Prototyping Exercises:** Incorporate hands-on exercises that allow participants to create prototypes and conduct user testing. This may include creating low-fidelity paper prototypes or digital prototypes using prototyping software.

**Unit 3: Implementation and Feedback****Section 3.1.** Design for ImplementationThis section focuses on planning and strategising for implementing Design Thinking within an organisation, emphasising the importance of a structured approach to ensure that innovative solutions become a reality. The content will cover the following key points:1. **Introduction to Design for Implementation:** Define the concept of "Design for Implementation" as the phase that follows ideation and concept development. This section involves turning innovative ideas into actionable plans.
2. **Alignment with Organizational Goals:** Stress the need for alignment between the solutions developed through Design Thinking and the broader goals and objectives of the organisation. Participants will learn how to ensure their initiatives contribute to the organisation's strategic direction.
3. **Resource Allocation:** Discuss the allocation of resources, including time, budget, and personnel, to support the implementation of Design Thinking solutions. Participants will explore strategies for effectively managing resources.
4. **Project Planning:** Introduce the concept of project planning, including defining project scopes, timelines, and critical milestones. Participants will learn how to create a project plan outlining the steps required for implementation.
5. **Cross-Functional Collaboration:** Emphasize the importance of cross-functional collaboration and teamwork in the implementation phase. Participants will understand how various departments and stakeholders must collaborate to bring Design Thinking solutions to fruition.
6. **Change Management:** Address the challenges of organisational change that may arise while implementing innovative solutions. Discuss strategies for managing resistance to change and ensuring a smooth transition.
7. **Risk Assessment:** Explain the importance of conducting a risk assessment to identify potential challenges or barriers to implementation. Participants will learn how to mitigate risks and plan for contingencies.
8. **Monitoring and Evaluation:** Discuss the need for ongoing monitoring and evaluation of the implementation process. Participants will explore key performance indicators (KPIs) and evaluation metrics to measure the progress and success of the initiatives.
9. **Communication and Reporting:** Highlight the significance of clear and effective communication throughout the implementation phase. Participants will learn how to create regular progress reports and communicate updates to stakeholders.
10. **Documentation and Knowledge Transfer:** Stress the importance of documenting the implementation process, including lessons learned and best practices. Participants will understand how to facilitate knowledge transfer within the organisation.
11. **Practical Application:** Include case studies and practical exercises allowing participants to develop implementation plans for Design Thinking solutions relevant to their organisations.

**Section 3.2.** Measuring and Evaluating Design ImpactIn this section, participants will learn how to assess the impact of Design Thinking initiatives within their organisations. The focus is on measuring the effectiveness of solutions and understanding their contributions to business goals. The content will cover the following key points:1. The Importance of Measurement: Emphasize the significance of measuring the impact of Design Thinking initiatives to ensure that efforts are aligned with organisational objectives and to justify investments.
2. Defining Key Performance Indicators (KPIs): Explain the process of identifying and defining specific KPIs that will be used to measure the success of Design Thinking projects. Participants will learn to establish clear, measurable goals.
3. Data Collection and Analysis: Discuss the methods and tools for collecting relevant data to track KPIs. Participants will also explore how to analyse the data to gain insights into the performance and effectiveness of the initiatives.
4. Qualitative Assessment: Highlight the value of qualitative assessment methods, such as user feedback and satisfaction surveys, in understanding the impact of Design Thinking solutions on user experiences.
5. Quantitative Metrics: Introduce various quantitative metrics that can be used to measure Design Thinking impact, including metrics related to revenue, cost savings, efficiency improvements, and customer engagement.
6. Benchmarking: Explain the concept of benchmarking, which involves comparing the performance of Design Thinking initiatives against industry standards or competitors. Participants will learn how to use benchmarking to assess relative performance.
7. Feedback Loops: Stress the importance of creating feedback loops within the organisation to continuously gather insights and improve the impact of Design Thinking projects.
8. Reporting and Visualization: Discuss the effective communication of results through reporting and visualisation. Participants will learn how to present findings clearly and understandably to stakeholders.
9. Adjustment and Iteration: The evaluation process should inform adjustments and iterations to Design Thinking initiatives. Discuss how organisations can use evaluation results to enhance future projects.
10. Real-World Examples: Share real-world case studies that illustrate the measurement and evaluation of Design Thinking impact and how it led to improvements in product, service, or process design.
11. Practical Application: Include practical exercises that allow participants to define KPIs and create measurement plans for Design Thinking initiatives relevant to their organisations.
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| **5 glossary entries** | **Design Thinking.** Design Thinking is a human-centred approach to problem-solving and innovation that prioritises empathy for end-users, collaboration, and experimentation. It involves a structured process of understanding user needs, ideating creative solutions, prototyping, and testing to arrive at innovative designs and solutions.**User Persona.** A user persona is a fictional representation of a typical end-user or customer. It includes demographic information, behaviours, goals, and pain points. User personas are used in Design Thinking to better understand and empathise with the target audience.**Ideation.** Ideation is the creative process of generating a wide range of ideas and solutions, often in a brainstorming session. It is a crucial stage in Design Thinking where participants aim to think freely and expansively to address the identified challenges.**Prototyping.** Prototyping involves creating tangible representations of concepts or solutions, ranging from low-fidelity sketches to high-fidelity models. Prototypes are used for testing and validating ideas, helping teams visualise and refine their designs before implementation.**Key Performance Indicator (KPI).** A KPI is a measurable metric used to assess the performance and impact of a project, initiative, or organisation. In Design Thinking, KPIs are established to quantitatively measure the success and effectiveness of solutions developed through the process, helping to evaluate their impact on user experiences or business outcomes. |
| **5 multiple-choice self-assessment questions** | **Question 1. What is the primary focus of Design Thinking?**Option a: Efficiency and cost reductionOption b: User-centered problem-solving and innovation]Option c: Competition and market analysisOption d: Project management and resource allocation**Correct option: b****Question 2. What is the purpose of creating user personas in Design Thinking?**Option a: To create fictional characters for storytellingOption b: To understand the demographics of usersOption c: To empathise with and better understand the target audienceOption d: To generate marketing materials**Correct option: c****Question 3. Which stage of the Design Thinking process involves the creative generation of ideas and solutions?**Option a: EmpathiseOption b: DefineOption c: IdeateOption d: Prototype**Correct option: c****Question 4. What is the main purpose of prototyping in Design Thinking?**Option a: To create final product versionsOption b: To visualise and refine ideasOption c: To conduct market researchOption d: To generate user personas**Correct option: b****Question 5. What do KPIs (Key Performance Indicators) help measure in the context of Design Thinking?**Option a: The cost of implementing a solutionOption b: The number of brainstorming sessions conductedOption c: The success and impact of solutions on user experiences or business outcomesOption d: The number of user personas created**Correct option: c** |
| **Bibliography and further references** | [source and references of the contents if any; APA style] |
| **Related material** | [indicate here the name of the ppt file that accompanies this course; please use this format both for fiche and ppt: DREAM\_WP3\_Training\_PARTNER\_EN] |
| **Video (if any)** | [link] |