



EARTHE

Activity 2

Digital toolkit for innovative curriculum and methodological development

Module - Problem solving

Method – Rapid prototyping

Module 4 – Problem Solving

Method 5 – Rapid Prototyping

Soft skill focus

Rapid Prototyping is a method that can help learners develop essential soft skills by encouraging iterative problem-solving, creativity, and hands-on testing of ideas. Participants are guided to try out solutions quickly, learn from what works and what doesn't, and refine their approaches step by step. This process not only fosters innovation but also builds resilience, adaptability, and collaboration, as learners work together to explore multiple possibilities and overcome challenges in a practical, low-risk environment.

Learning outcomes

By the end of this method, participants will be able to:

- Translate ideas into tangible models quickly.
- Identify strengths and weaknesses of a solution through testing.
- Iterate solutions based on feedback.
- Work effectively in creative, time-limited teams.

Target group

Age – Adults (25+)

Gender – All genders

Level of studies – Variable (from vocational to postgraduate)

Status – Employed, unemployed, or in transition

Fewer opportunities – Rapid Prototyping can involve a wide range of participants, including those from disadvantaged backgrounds, making it an inclusive approach to learning and innovation. It is especially valuable for adult educators—such as coaches, trainers, and facilitators—working in both formal and non-formal learning settings. By



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applying this method, educators can experiment with ideas quickly, test solutions in a hands-on way, and adapt their approaches based on real feedback.

Method description

Rapid Prototyping is a hands-on method where learners quickly create simple, low-cost versions of their ideas or solutions, often using materials that are easy to manipulate. These prototypes are then tested in realistic scenarios or presented to others to gather immediate feedback. Based on this input, learners refine and improve their designs in iterative cycles, learning from mistakes without investing excessive time or resources. This approach encourages creativity, problem-solving, and collaboration, as participants can experiment freely, see the practical impact of their ideas, and adapt solutions in real time.

Implementation instructions

Timeline: 60–90 minutes

No. of participants: 8 to 20

Necessary materials: Craft supplies, paper, markers, tape, digital design tools.

Space: Classroom or workshop area

Implementation in 5 steps

Define the Problem – Clearly define the problem or challenge, so everyone understands exactly what needs to be addressed.

Idea Selection – This step involves the selection of an idea, i.e. the most promising concept to develop further.

Build Prototype – In the build phase, a simple, functional model of the idea is created — this doesn't need to be perfect, just enough to demonstrate how it works.

Test & Gather Feedback – Once the prototype is ready, it is tested and shared with others to gather feedback, uncover strengths and weaknesses, and identify opportunities for improvement.

Refine & Present – Finally, the prototype is refined based on this feedback, polished, and presented, often sparking new insights or inspiring further iterations.



Practical tips

- Tip 1 – Use inexpensive, accessible materials.
- Tip 2 – Emphasise speed over perfection.
- Tip 3 – Include a feedback round before finalising.

Debriefing questions

- Question 1 – What worked well in your prototype?
- Question 2 – What did you change after testing?
- Question 3 – How could this process help in your real work?

Practical description sheet

Title: Rapid Prototyping – Problem Solving

Purpose: To encourage iterative problem-solving, creativity, and practical testing of ideas.

Duration: 60-90 minutes

Format: Group and individual work

Core Steps: Define the problem → Select the idea → Build prototype → Test and gather feedback → Refine and present

Materials: Craft supplies, paper, markers, tape, digital design tools.

Key Benefits: Enhanced critical thinking, collaborative problem solving and practical testing of ideas.