EARTHE

Activity 2

Digital toolkit for innovative curriculum and methodological development

Module - Problem solving

Method - Logic Games and Puzzles

CIPerform innovation and performance hub

WEBIN Western Balkans Institute

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Module 4 – Problem Solving

Method 6 – Logic Games and Puzzles

Soft skill focus

Logic games and puzzles are more than just fun exercises. They help one strengthen key soft skills that are valuable in everyday life and professional settings. By tackling these challenges, learners develop logical reasoning, improve pattern recognition, and practice systematic problem-solving. Beyond these cognitive benefits, such activities also encourage patience, attention to detail, and persistence, as participants learn to work methodically through complex problems. Collaborative puzzle-solving further builds teamwork and communication skills, as individuals share strategies, explain their thinking, and learn from one another's approaches

Learning outcomes

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

- Apply structured thinking to solve logical challenges.
- Recognise patterns and relationships in information.
- Persevere in solving complex problems.
- Use collaborative reasoning to find solutions.

Target group

Age – Adults (25+)

Gender – All genders

Level of studies – Variable (from vocational to postgraduate)

Status – Employed, unemployed, or in transition

Fewer opportunities – This method is highly usable, particularly with regards to participants from disadvantaged or underrepresented backgrounds, as these activities aim to be inclusive and accessible, providing a supportive environment where everyone

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can participate meaningfully, regardless of prior experience or skill level. On the other hand, by guiding learners through logical games and puzzles, educators help develop critical thinking, problem-solving, and collaborative skills, while also fostering confidence and engagement among learners who might otherwise have limited access to such educational experiences.

Method description

Logic games and puzzles are activities where participants solve challenges that require careful thinking and reasoning, such as riddles, Sudoku, or problem grids. These exercises can be done individually or in teams, encouraging both independent thinking and collaborative problem-solving. Beyond simply being fun, they help develop critical skills like pattern recognition, strategic planning, and attention to detail. Participants also learn to approach problems systematically, test different solutions, and think creatively when faced with complex or unfamiliar scenarios.

Implementation instructions

Timeline: 30–45 minutes

No. of participants: 6 to 20

Necessary materials: Printed puzzles, pens, optional prize for winners.

Space: Classroom or online puzzle platform.

Implementation in 5 steps

Introduce the Puzzle(s) – Introduce the puzzles by clearly explaining the rules and objectives, ensuring that all participants understand what is expected.

Clarify Constraints – Clarify any constraints, such as time limits or available resources, so learners know the boundaries within which they must work.

Individual/Team Work – Within this step, participants either individually or in teams tackle the puzzles, putting their reasoning and creativity to the test.

Check & Discuss Solutions – At this step, check and discuss the solutions together, allowing participants to share not only the answers but also the different methods they used to reach them.

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Reflect on Process – Take time to reflect on the process, exploring the problem-solving strategies, thought patterns, and collaborative approaches that emerged.

Practical tips

Tip 1 – Start with easier puzzles to build confidence.

Tip 2 – Offer hints to prevent frustration.

Tip 3 – Include puzzles requiring different skills.

Debriefing questions

Question 1 – What strategies helped you solve the puzzle?

Question 2 – Did you work better alone or in a team? Why?

Question 3 – How could this type of thinking help in everyday problem-solving?

Practical description sheet

Title: Logic Games and Puzzles – Problem Solving

Purpose: To strengthen logical reasoning, pattern recognition, and systematic problem-solving.

Duration: 45 minutes

Format: Group and individual work

Core Steps: Introduce the puzzle → Clarify constraints → Individual/team work → Checking solutions → Reflection

Materials: Printed puzzles, pens, optional prize for winners.

Key Benefits: Enhanced logical reasoning, collaborative problem solving and practical testing of ideas.

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