LEARNING BOX OF UNPLUGGED ACTIVITIES

The financial instability loop

In this unplugged gamified activity, participants take on the role of freelancers navigating the challenge of irregular income and unpredictable expenses. Each player or team manages a fictional financial profile, receiving income at random intervals while facing recurring and unexpected costs (e.g., rent, equipment failure, medical bills, late payments from clients).

The goal of the activity is to achieve financial stability over several "rounds" (representing weeks or months) by making strategic decisions about spending, saving, and prioritization. Event cards introduce uncertainty and force participants to adapt their plans in real time.

Participants earn points for maintaining positive balances, building savings, and successfully handling unexpected expenses. Poor planning or risky decisions may lead to financial instability, creating a feedback loop that impacts future rounds

Target Group

- ☐ Low-skilled adults with low digital competences
- ☑ Low-skilled adults with limited formal education or qualifications
- ☑ Low-skilled adults with low participation in lifelong learning / training opportunities

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Theme

Personal financial management under uncertainty, particularly in freelance or gig economy work

Duration

60 mins

Level

Advance

Computational Thinking Steps Used

- ☑ Decomposition
- ☑ Pattern recognition
- ☑ Abstraction
- ☑ Algorithmic thinking

Methodological Approach

- ☑ Gamification
- ☐ Challenge-Based Learning
- ☐ Collaborative learning
- ☐ Experiential learning

Learning Objectives

Analyze and manage irregular inputs and unpredictable constraints within a system

Apply decomposition to break down a complex system into components such as categories of inputs, fixed elements, variable elements, and resources

Recognize patterns in flows of information and recurring elements over time

Apply abstraction to focus on key priorities and constraints while ignoring non-essential details

Develop and adapt strategies to maintain stability and performance under uncertainty

Competence Areas

a) Innovation Competences

- ☐ Creativity
- ☑ Critical thinking
- ☑ Problem solving
- ☑ Communication
- ☐ Collaboration

b) Information Literacy Competences

- ☑ Ability to access, understand and critically analyse information
- ☑ Interpretation of digital and visual content
- ☐ Awareness of media influence and biases

c) Life and Career Competences

- ☑ Flexibility and adaptability
- ☑ Initiative and autonomy
- ☐ Sociability and intercultural competence
- ☑ Productivity
- ☑ Leadership and responsibility

Learning Outcomes

Track and manage inputs and outputs within an uncertain and dynamic system

Identify patterns in flows and recurring challenges over time

Apply decomposition and abstraction to simplify complex decision-making processes

Adjust strategies in response to changing conditions and constraints

Make informed decisions to maintain or improve stability over time

Notes

Keep the game mechanics simple and transparent (income rounds, expense cards, savings tracking) so participants focus on decision-making rather than rules.

Design income to be irregular (e.g., variable payments, delayed invoices) to reflect real freelance conditions.

Include a mix of predictable expenses (rent, bills) and unexpected “event cards” (emergencies, late payments, opportunities).

Ensure that uncertainty is balanced—participants should feel challenged but not blocked from progressing.

Encourage players to plan ahead (saving, budgeting) rather than reacting only in the moment.

Allow multiple viable strategies (risk-taking vs. conservative saving) and discuss their consequences.

Introduce feedback loops (e.g., low savings leading to higher risk in future rounds) to reinforce long-term thinking.

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Step 1: Set up your financial profile

Participants are assigned a freelance profile with a basic financial situation: irregular monthly income range, fixed costs (e.g., rent, subscriptions), and basic living expenses. Each participant/team receives a starting balance and a simple financial tracker.

The facilitator introduces the game structure in "rounds" (weeks or months). In each round, participants will receive income cards and expense cards. The goal is to survive and maintain financial stability over multiple rounds.

Participants begin by organizing their financial information into clear categories (income, fixed expenses, variable expenses, savings goals).

Computational thinking focus: Decomposition, breaking down personal finances into structured components to understand the system.

Step 2: Play rounds: income, expenses, and patterns

Each round, participants draw or receive income and expense cards. Income is irregular (delayed payments, varying amounts), while expenses include both predictable costs and surprise events (emergency repairs, late invoices, new opportunities).

Participants update their financial tracker after each round and begin identifying patterns in their cash flow (e.g., months with deficits, recurring high-cost periods, unreliable clients).

Computational thinking focus: Pattern recognition, identifying trends in income variability and recurring financial pressures over time.

Step 3: Adapt strategy and optimize stability

Based on patterns observed, participants design or adjust their financial strategy. This may include setting savings rules, prioritizing expenses, building emergency buffers, or changing spending behavior across future rounds.

	They must justify their strategy and explain how it helps them maintain long-term stability under uncertainty. The game continues for a final set of rounds to test the effectiveness of their approach. *Computational thinking focus:* Abstraction, focusing on key financial variables (income stability, essential costs, risk exposure) while ignoring non-critical details. Algorithmic thinking, designing a step-by-step strategy to manage finances over time and improve stability in a dynamic system.

ACTIVITY CARDS

The financial instability loop

Card Categories

Profile	Income	Fixed expense	Unexpected events

Priority Levels

Essential **Extremely necessary to take into consideration**	**High** Importance	**Medium** Helpful to take into consideration

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Print and cut the cards on the following slides to use in the activity.

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GRAPHIC DESIGNER

Average Monthly Income: €1,500

Income Pattern
Several small projects each month.

Strength: Many clients reduce the risk of losing all income.

Challenge: Payments are often delayed.

PHOTOGRAPHER

Average Monthly Income: €1,700

Income Pattern
Large payments, but only after completing projects.

Strength: High earning potential.

Challenge: Long periods without income.

DELIVERY DRIVER

Average Monthly Income: €1,300

Income Pattern
Weekly income.

Strength: Regular cash flow.

Challenge: Income depends on available work.

WEB DEVELOPER

Average Monthly Income: €2,000

Income Pattern
A few large contracts each year.

Strength: Higher average income.

Challenge: Unexpected gaps between projects.

NEW CLIENT

Receive €900.

SMALL PROJECT

Receive €300.

SUCCESSFUL MONTH

Receive €1,400.

INVOICE PAID

A delayed payment arrives.

Receive €700.

RENT

Pay €600.

UTILITIES

Pay €120.

INTERNET AND PHONE

Pay €70.

FOOD

Pay €250.

MEDICAL EMERGENCY

Pay €450.

Priority: Urgent

LAPTOP FAILURE

Pay €700 for repairs.

Priority: High

CAR REPAIR

Pay €500.

Priority: High

TAX BILL

Pay €350.

Priority: Urgent

FAMILY EMERGENCY

Pay €400.

Priority: Urgent

NEW BUSINESS OPPORTUNITY

Invest €300 now.

Receive €700 next round.

Priority: Urgent

FREE TRAINING COURSE

Pay €100.

Receive €200 extra income during the following round.

Priority: High

GOOD NEWS

No unexpected expenses this round.

Priority: Medium