LEARNING BOX OF UNPLUGGED ACTIVITIES

The online order chaos

In this unplugged activity, participants take on the role of small business owners who are struggling to manage and track a growing number of customer orders. They are given a set of fictional orders with details such as customer names, products, quantities, order dates, and delivery status—but the information is disorganized and inconsistent.

Participants must organize the data, identify missing or conflicting information, and design a system to track orders more efficiently. The challenge is to bring structure to the chaos while ensuring that no orders are lost, delayed, or incorrectly processed.

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

Learning Objectives

- Analyze and organize disordered or unstructured information within a system
- Apply decomposition to break down a complex system into key components such as entities, items, and states
- Identify patterns and common issues such as missing data, duplicates, or inconsistencies
- Apply abstraction to focus on the essential information needed for tracking and management
- Develop a structured method for managing and updating information efficiently

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Theme

Information management and operational efficiency in small business environments

Duration

60 mins

Level

Intermediate

Computational Thinking Steps Used

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

Methodological Approach

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

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

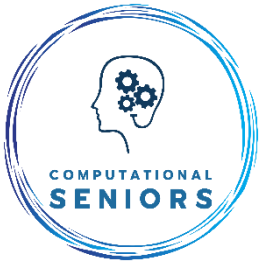
- Organize and structure information effectively within a system
- Identify inconsistencies, duplicates, and missing data in a dataset or information set
- Apply decomposition and abstraction to simplify a complex information management problem
- Recognize patterns in common errors or inefficiencies within a system
- Design a clear system for tracking and updating information

Notes

- Keep the dataset manageable so participants focus on reasoning rather than getting overwhelmed.
- Include a mix of clear and subtle errors to encourage deeper analysis.
- Avoid making it a purely clerical task; emphasize designing a system, not just fixing individual orders.
- Encourage participants to define categories and

structures before organizing the data.

- Allow flexibility in solutions—different systems (tables, labels, workflows) can be equally valid.
- Prompt participants to think about scalability: how their system would work with more orders.



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The online order chaos

Step 1: Explore and structure the order data

Participants receive a set of disorganized customer orders, including details such as names, products, quantities, dates, and delivery status. The information may be inconsistent, incomplete, or duplicated.

They begin by reviewing all the data and organizing it into a clearer structure (e.g., categories, tables, or grouped lists). The goal is to understand what information is available and what is missing or unclear.

Computational thinking focus: Decomposition, breaking down the problem into key components such as customers, products, and order status.

Step 2: Identify issues and patterns

Participants analyze the organized data to detect common problems, such as duplicate orders, missing information, inconsistent formats, or repeated errors.

They look for patterns in these issues to better understand where the system is failing and what needs to be improved.

Computational thinking focus: Pattern recognition, identifying recurring errors and inefficiencies in the data.

Step 3: Design an improved tracking system

Participants create a structured system for managing orders more effectively. This could include defining standard formats, creating tracking categories, or designing a workflow for updating order status.

They present and justify their system, explaining how it reduces errors, improves clarity, and could scale as the business grows.

Computational thinking focus: Abstraction, focusing on essential information and designing a simplified, effective system for managing complexity

ACTIVITY CARDS

The online order chaos

Card Categories

Customer orders

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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EMMA BROWN

Product: Wireless Mouse

Quantity: 2

Order Date: 5 June

Status: Packed

DAVID GREEN

Product: Coffee Maker

Quantity: 1

Order Date: 6 June

Status: Delivered

SARAH WHITE

Product: Headphones

Quantity: 1

Order Date: 6 June

Status: Processing

MICHAEL KING

Product: Laptop Stand

Quantity: 3

Order Date: 7 June

Status: Shipped

EMMA BROWN

Product: Wireless Mouse

Quantity: 2

Order Date: 5 June

Status: Packed

(Duplicate order)

OLIVIA SMITH

Product: _____

Quantity: 1

Order Date: 8 June

Status: Processing

(Missing product)

DANIEL LEE

Product: Keyboard

Quantity: _____

Order Date: 8 June

Status: Packed

(Missing quantity)

SOPHIA WILSON

Product: Monitor

Quantity: 1

Order Date: _____

Status: Delivered

(Missing date)

JAMES TAYLOR

Product: Printer

Quantity: 1

Order Date: 9 June

Status: Sent

JAMES TAYLOR

Product: Printer

Quantity: 1

Order Date: 9 June

Status: Shipped

(Inconsistent status terminology)