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This project has been co-financed with support from the European Commission's ERASMUS+ programme. This publication reflects only the views of its authors, and neither the European Commission nor SEPIE can be held responsible for any use that may be made of the information contained herein.

Theme

Innovation Competences

Duration

60–90 minutes

Level

Advanced

Computational Thinking Steps Used

☑Decomposition
☑ Pattern recognition
☑ Abstraction
☑ Algorithmic thinking

LEARNING BOX OF UNPLUGGED ACTIVITIES

"Fix the Chatbot!" – Understanding Chatbots by Finding Mistakes

In this activity, adult learners analyse examples of incorrect chatbot conversations. They identify mistakes, discuss what went wrong, and suggest better responses. Adult learners reflect on what makes communication clear and useful. By the end, they better understand how chatbots work and how to improve them.

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

By the end of this activity, adult learners will be able to:

- Break down a chatbot conversation into simple parts;
- Identify common mistakes in chatbot responses;
- Recognize what information is missing or unclear;
- Suggest improved responses using simple logic;
- Explain why one response is better than another.

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

Methodological Approach

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

c) Life and Career Competences

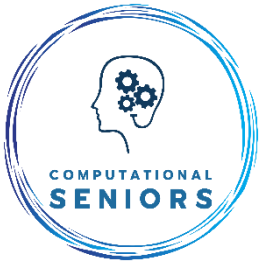
☑ Flexibility and adaptability
☑ Initiative and autonomy
☑ Sociability and intercultural competence
☐ Productivity
☐ Leadership and responsibility

Learning Outcomes

- Ability to break down a chatbot conversation into clear steps;
- Developed skill of identifying errors or unclear responses;
- Ability to distinguish between useful and poor communication;
- Developed ability to suggest simple improvements to chatbot responses;
- Ability to explain their reasoning clearly.

Notes

- Use simple and clear conversation examples;
- Make examples slightly incorrect or funny to increase engagement;
- Encourage discussion and sharing;
- Use simple language and avoid technical terms;
- Support adult learners but allow them to find answers themselves.



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"Fix the Chatbot!" – Understanding Chatbots by Finding Mistakes

Step 1: Decomposition

Adult learners are given a simple chatbot conversation (spoken or written by the facilitator).

Example:

User: I want to book a hotel
Chatbot: Hello
User: For 2 nights
Chatbot: I don't understand

They are asked to:

- Break the conversation into parts (question, answer, missing response);
- Identify what the user wants;
- Identify what the chatbot should do.

Gamification element: adult learners quickly react (raise hand or say "problem!" when they notice an issue).

Facilitator support

- Facilitator may ask: "What is happening here?"
- Help adult learners identify each step

This step helps adult learners break down a conversation into clear and manageable parts, making it easier to understand how chatbot interactions are structured.

Step 2: Pattern Recognition

Adult learners analyze several similar examples.

Adult learners are asked to:

- Identify repeated mistakes (e.g., no answer, unclear answer, wrong answer)
- Recognise patterns in poor communication

Gamification element: adult learners vote (good/bad response).

Facilitator support

- Facilitator may ask: "What is wrong in all examples?"
- Highlight repeated problem

This step helps adult learners recognize patterns in communication errors, making it easier to understand how similar problems appear in different chatbot interactions.

Step 3: Abstraction – Focusing on What Matters Most

Adult learners focus on what is essential in a good response.

They are asked to:

- Identify key elements (clear answer, relevant information, helpful question)
- Ignore unnecessary or confusing parts

Gamification element: adult learners choose the "best answer" from options.

Facilitator support

- Facilitator may ask: "What makes this answer better?"
- Emphasize clarity and usefulness

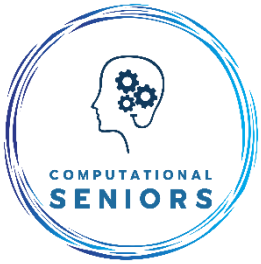
This step helps adult learners focus on the most important elements of communication, making it easier to understand what makes a chatbot response effective

Step 4: Improved Chatbot Strategy (Algorithmic Thinking)

Adult learners create a better version of the conversation, e. i., create an algorithm.

Adult learners should:

- Suggest simple rules such as:
  o "Answer clearly"
  o "Ask for missing information"
  o "Stay relevant"
- Create a simple step-by-step algorithm:
  1. Understand the request;
  2. Ask for missing details;
  3. Provide a clear answer.





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Gamification element: adult learners present their improved versions of chatbots, and others react (agree/disagree).

Facilitator support

Facilitator may ask: “Is this clear and helpful?”

- Encourage simple logic

This step helps adult learners create structured responses and understand how chatbots can be improved using simple rules and logical thinking.