

UNIT 6. Training Implementation: Flexibility and Accessibility



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1. Aim and Objectives

The aim is to equip adult trainers with a practical framework and computational thinking (CT) tools to deliver training that is structurally flexible and cognitively accessible for seniors and low-qualified adults.

O By the end of this unit, adult educators will be able to:

- B**
- J**
- E**
- C**
- T**
- I**
- V**
- E**
- S**
1. Use the “Modular Format” for lesson delivery by applying the CT principle of decomposition to break complex lessons into 15-minute segments.
 2. Implement “Multi-Channel” delivery, combining offline worksheets, recorded explanations, and visual aids to ensure accessibility.
 3. Establish a consistent “Review-and-Connect” cycle that leverages adult learners’ life experiences to ensure learning continuity.



2. Outcomes

Adult trainers will be able to:

1. Adapt any CT lesson plan—specifically regarding disinformation—into a modular and accessible format that accommodates varying digital literacy levels, irregular attendance, and diverse learning styles;
2. Implement “Multi-Channel” delivery, combining offline worksheets, recorded explanations, and visual aids to ensure accessibility.
3. Establish a consistent “Review-and-Connect” cycle that leverages adult learners' life experiences to ensure learning continuity.



3. Main CT Principles Applied

- **Decomposition:** Breaking a complex 60-minute training session on disinformation into micro-modules (e.g., 15-minute tasks).
- **Abstraction:** Simplifying complex technical instructions regarding online "fake news" into plain language and clear visual aids.
- **Algorithmic thinking:** Creating step-by-step "recipes" for adult learners to follow when verifying the source of an online article.
- **Pattern Recognition:** Helping adult learners identify recurring traits of disinformation, such as clickbait headlines or suspicious URLs.





4. Link to WP2 Modules

This unit serves as the practical approach for the WP2 Theoretical Framework on Computational Thinking (CT).

Unit 6 explains how to present these concepts to adult learners in a simple, understandable way.

It applies the "Andragogical Principles" by focusing on providing multiple means of learning by engaging with and integrating learners' life experiences.



5. Challenges

Adult trainers must overcome several interconnected challenges: irregular attendance, heterogeneous skill levels, limited reading abilities, low confidence, restricted access to technology, and anxiety about using digital tools. A fixed, lecture-based approach may intensify these barriers, particularly when learners miss sessions, require additional time, or have difficulty following written instructions.

Trainers should create a responsive learning environment that prioritises flexibility and accessibility. A modular approach can provide alternative learning pathways, enabling learners to develop specific computational thinking (CT) competences even if they miss a session, join an activity late, or cannot access technology at home.

Trainers should also use simple language, provide clear instructions, create psychological safety, and recognise learners' existing knowledge and life experiences. These measures can help reduce digital barriers, strengthen participation, and prevent learners from disengaging or dropping out.





6. Justification

Adult education is often hindered by irregular attendance and heterogeneous skill levels. Without flexibility, adult learners who fall behind often drop out.

Accessibility (visual, auditory, and physical) removes the "digital wall" that seniors often face, making the transition to CT concepts smoother and more inclusive.

Balancing Life Responsibilities

Adult learners, especially seniors and low-qualified adults, often balance work, family, and community responsibilities, which directly impacts their availability and mental energy.

Goal-Oriented Nature

Adults are oriented to goals and very practical; they are more likely to engage when they see immediate, real-life value in the computational thinking (CT) concepts being taught.

Vulnerability and Self-Confidence

Many seniors experience high levels of "learning anxiety" or lack confidence in using digital tools. Trainers who understand this can avoid high-stress activities—such as compulsory personal introductions.

Recognition of Life Experience

Understanding the learner's rich life experience allows the trainer to use tools like the "Life Experience Map" to validate what they already know, turning technical concepts into familiar "digital recipes" or algorithms for daily life.

Why is this unit important?

Understanding learners' needs helps trainers adapt the pace, support and delivery of training.



7.1 Activity. The Life Experience Map

When working with seniors, **flexibility and accessibility** are important. At this stage of life, adult learners are not looking for “activities for the sake of activities” — they want to feel that their years of experience are an asset, not a relic of the past.

Here is an example of an icebreaker activity designed to validate adult learners’ **life experience** while supporting accessibility and participation without pressure.

The Life Experience Map

This activity turns a standard “introduction” into a visual celebration of a life well-lived. It shifts the focus from “what I want to learn” to “what I already bring.”

Accessibility Tip:

For those with limited mobility or vision, this can be done as a “Verbal Map” where they describe their journey to a partner who takes notes.

Step-by-Step:

Task 1:

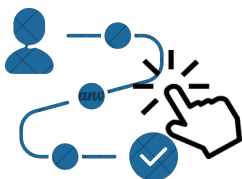
Provide each participant with a large sheet of paper (or a digital whiteboard like Miro if online). Ask them to draw a simple “road” or “map” representing their professional and personal journey.

Task 2:

Mark three or four milestones at which you learnt something you still use today.

Task 3:

Instead of saying names, each learner introduces themselves as an “expert by experience”.



Activity Template: The Life Experience Map



7.2 Activities. The “Expert for a Minute”

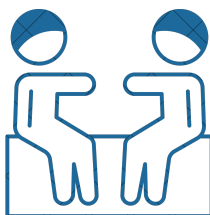
The “Expert for a Minute”

Seniors often feel a bit intimidated by new technology or modern training methods. This game flips the power dynamic and puts them in the teacher's seat immediately.

The “Expert for a Minute”

Accessibility Tip:

Ensure the room has low background noise so participants can hear their partners clearly.



Activity: “The Disinformation Life-Hack”

- **Task:** In pairs, learners share one “trick” they’ve used in life to spot a lie or a scam (e.g., at a market or over the phone).
- **CT Integration:** The trainer explains that this is pattern recognition—applying past experience to solve a new digital problem.
- **Accessibility:** For those with hearing impairments, use the “Chat” function in digital sessions to summarise the tip.

Step-by-Step:

Task 1:

Divide the group into pairs. Each person has 60 seconds to teach their partner one “life hack” or skill they’ve mastered over the years—anything from “how to grow the perfect tomato” to “how to negotiate a complex contract.”

Task 2:

Question: “What is one thing you can do so well that you could do it with your eyes closed?”

Task 3:

Establish within the group that everyone in the room has something valuable to contribute, which promotes the creation of a mutual learning environment.



7.3 Activity. The Wisdom Network

Common Threads (The Wisdom Network)

This is a high-energy but physically low-impact icebreaker activity that highlights shared history and collective knowledge.

The Wisdom Network

Accessibility Tip:

If tossing a ball of yarn is difficult due to motor skills, use a "Digital Connection List" on a screen where you draw lines between names as people find commonalities.



Step-by-Step:

Step 1:

The trainer starts with a ball of yarn. You state a piece of "learned wisdom" (e.g., "I've learned that patience is more important than speed"). Anyone who agrees or has had a similar experience raises their hand. You toss the yarn to one of them (holding onto the end), and they share their experience before stating their own piece of wisdom.

Step 2:

Ask participants: "Share something you have learnt through work or everyday life."

Step 3:

By the end, the group is physically connected by a "web" of shared experiences, proving they are a community of experts.



When facilitating these activities, keep three principles in mind:

Respect: Acknowledge their history.

Relevance: Connect the game to the actual training topic.

Relaxation: Keep the atmosphere light to lower "tech anxiety" or "classroom jitters."



7.3.1 How can these activities be adapted for a remote/digital environment?

Here is a **practical checklist for trainers** to ensure these activities are inclusive and effective in a **virtual classroom**.



General Digital

Accessibility Checklist

Before starting any digital game with seniors, ensure these foundational elements are in place:

- **Pre-Session Tech**

Check: Did you offer a 15-minute "tech-intro" session a day before to help participants test their mics, cameras, and platform features?

- **The "Big Font" Rule:** Are all your shared slides and digital instructions using a sans-serif font of at least 24 pt?

- **Co-Pilot Support:** Do you have a moderator to handle "I can't hear anything" or "Where is the button?" in the chat while you lead the activity?

- **Simplified Navigation:** Have you replaced complex links with easy-to-click buttons or QR codes?



Activity-Specific Adaptations

1. The Life Experience Map (Digital Version)

Instead of physical paper, use a collaborative tool like Padlet or Google Slides.

- Adaptation: Assign each participant one slide in a shared presentation. Pre-load the slides with a simple "road" graphic.
- Action: Ask them to insert 3 text boxes or photos representing their milestones.
- Accessibility: If a participant struggles with the "drag and drop" interface, have them describe their milestones while the trainer/moderator builds the map for them on screen in real time.

2. The Expert for a Minute (Digital Version)

Utilise Breakout Rooms to reduce sensory overload.

- Adaptation: Move participants into pairs in breakout rooms. This mimics the intimacy of a face-to-face conversation and prevents the "everyone talking at once" fatigue.
- Action: Use the "Broadcast Message" feature to tell them when to switch speakers.
- Accessibility: For those with hearing impairments, encourage the "learner" to keep their camera on so the "expert" can see their reactions, and suggest using the "Chat" function to summarise the key "life hack" tip.

3. Common Threads (Digital Version)

Replace the yarn with a Collaborative Digital Whiteboard (e.g., Miro or Zoom Whiteboard).

- Adaptation: Place everyone's name in a circle on the screen.
- Action: When someone shares a piece of wisdom and others agree, the trainer draws a colourful line (a "digital thread") connecting their names.
- Accessibility: Ensure you announce whose names are being connected (e.g., "I'm drawing a blue thread from Maria to John because they both value community"). This helps those with visual impairments follow the "growth" of the web.



7.4.1 Activity. The "Modular Blueprint" Challenge

This is a practical exercise for trainers to shift from a 60-minute "lecture" to a flexible, 15-minute "modular" system. This approach directly applies the computational thinking (CT) principle of decomposition—breaking a large, intimidating goal into small, achievable victories. In adult education, one hour of digital training can be exhausting or impossible due to irregular attendance. By decomposing the lesson into three 15-minute segments, you ensure that even if a learner arrives late or has to leave early, they still master at least one complete micro-competency.

Task:

Take a standard 60-minute CT lesson (e.g., "Safe Online Shopping") and "decompose" it into three 15-minute micro-tasks.

Step-by-Step:

Task A: Identify a product (Pattern Recognition).

Task B: Compare two prices (Evaluation).

Task C: Mock checkout (Algorithmic thinking).

Practical Tool:

A "Modular Template" for identifying core, optional and extension tasks according to the group's pace.



Activity: The "Modular Disinformation" Challenge
[Downloadable Resource Link](https://computationseniors.eu/)



7.4.2 Activity. The "Modular Blueprint" Challenge

The practical example: "Safe Online Shopping"

60-minute lesson: 5 minutes for the introduction, three 15-minute tasks, and 10 minutes for discussion.

Task A: Identify a Product (Pattern Recognition) – 15 min

- **The CT Goal:** Recognise common patterns in online stores (where is the search bar? where is the price?).
- **Practical Action:** Learners find a specific item on two different websites. They "recognise the pattern" of how shopping sites are structured.

Task B: Compare Two Prices (Evaluation/Abstraction) – 15 min

- **The CT Goal:** Evaluate information and filter out "noise" (like distracting ads) to focus on the total cost including shipping.
- **Practical Action:** Learners compare the final costs. This teaches them to "abstract" the important data from a cluttered screen.

Task C: Complete a Mock Checkout (Algorithmic thinking) – 15 min

- **The CT Goal:** Follow a step-by-step sequence of instructions to reach a goal.
- **Practical Action:** Learners follow the "Algorithm" of checking out: Add to Cart - view cart - enter address - review.

Note: This should always be done on a "mock" or "testing" site to ensure safety.





7.4.3 Activity. The "Modular Blueprint" Challenge

Practical Implementation Tips:

The 15-Minute Rule

If a task takes longer than 15 minutes, it is likely too complex and should be decomposed further.



Offline Backups

For each micro-task, have a printable worksheet ready. If the internet fails or a learner finds the screen too bright, they can continue the "Evaluation" task on paper without losing momentum.

"Small Victories"

At the end of each 15-minute module, ask the learners: "What is the one thing you can do now that you couldn't do 15 minutes ago?"





7.5 Activity. Engagement & Review

To ensure psychological safety and continuity, every session should begin with a "Review and Connect" phase.

The Short Review Cycle:

Use 5-minute interactive tools to recall previous content before starting a new lesson or activity.

Practical Recommendation:

Use simple "Flashcard" games or a "One Thing I Remember" circle.

Ice-breaking for Seniors:

Links to 2–3 simple introductory games (e.g., "The Life Experience Map") that validate their existing knowledge.

Engaging Vulnerable Groups:

Tips on "What to Ask."

Example: Instead of "Do you understand?", ask: "How could this step apply to your morning routine?" or "What part of this feels most useful for your daily tasks?"

What would you like to add to this activity?





7.6 Activity. "When?" and "How?"

This activity focuses on the "When" and "How" of participation, ensuring no adult learner is left behind due to life responsibilities.

Recorded Learning Paths:

Recommendations for recording sessions so learners can catch up if they miss a class.

Step-by-Step:

A simple guide on recording, for example, a Zoom session or using a smartphone to record a "Lesson Summary" audio clip.

The "Small Segments"

Strategy: Break 60-minute topics into 10–15-minute modular segments.

Practical Task:

Take a complex topic like "Online Public Services" and decompose it into three micro-tasks:

(1) Logging in, (2) Finding the form, (3) Final submission.

Flexible Lesson Scheduling:

Tips for offering "Drop-in" hours or varied time slots to accommodate adult learners' irregular attendance.





7.7 Activity. Multi-Format Accessibility

Accessibility must go beyond technology to include physical and cognitive ease. This approach reduces "learning anxiety" and helps learners see the immediate relevance of the concepts to their daily routines.

The Hybrid Approach:

Every digital task must have a "Printable Equivalent".

Scenario: If teaching "Managing a Household Budget", provide an Excel link and a printable paper worksheet with the same structure.

Visual and Plain Language:

Guidelines on avoiding abstract concepts. Replace technical jargon with "everyday metaphors".

Example:

Instead of saying "create an algorithm," ask: "What is the recipe for paying a bill online? What are steps 1, 2 and 3?"

Converting Content Simply:

- **Text to Audio:** Instructions on using free tools (e.g. browser "Read Aloud" features) to let learners listen to the manual.
- **Video Summaries:** How to use a phone to create a 2-minute "Visual Summary" of a lecture for those with low reading literacy.





8. Additional Resources

To enhance Unit 6: Training Implementation: Flexibility and Accessibility, the following resources are proposed to help adult trainers create lessons for adult learners that respect their diverse needs.

Video Resources

Microsoft Accessibility Fundamentals:

A series of short video modules on creating inclusive digital content (useful for trainers designing their own slides).

<https://learn.microsoft.com/en-us/training/paths/accessibility-fundamentals/>

UNESCO: Bridging the Grey Digital Divide

Discusses innovative digital learning initiatives tailored to the unique needs of older adults.

[Watch here](#)



Unplugged vs. Digital CT Activities

CT Principle	Unplugged (Offline) Example	Digital (Online) Example
Decomposition	"The Tea Algorithm" : Breaking down making a cup of tea into tiny, logical steps for a "robot" to follow.	"Folder Hierarchy" : Organising 10 photos into 3 clearly named folders (e.g., "Family," "Garden," "Holiday").
Pattern Recognition	"Song Lyric Hunt" : Identify repeated phrases (choruses) in a familiar song and call them "Functions".	"Predictive Text" : Observing how a phone "guesses" the next word based on previous patterns.
Abstraction	"The Simple Map" : Drawing a map from the classroom to the nearest cafe, leaving out every detail except the turns.	"Icon Literacy" : Learning that a "Trash Can" symbol always means delete, regardless of the app.
Algorithmic thinking	"Treasure Hunt" : One person writes instructions (code) to find a hidden object; the other follows them exactly to find "bugs".	"Online Checkout" : Following a 3-step sequence to "purchase" a free item in a training sandbox.



9. What is the value of this unit?

By planning for flexibility, the trainer creates a "safety net." This unit ensures that the training is not a "one-size-fits-all" event but a personalised approach to learners. It builds the adult learner's self-trust by proving that the material can adapt to them, rather than forcing them to adapt to a rigid, complex system. In adult education, "life happens." A learner might have a doctor's appointment, a family emergency, or simply a day when they find it difficult to concentrate.

Practical Action

Flexibility Modular lessons (15-minute tasks)

Accessibility Plain language & visual icons.

Personalisation Core vs. Extension tasks

Inclusivity Physical/Paper backups.



Impact on Learners

Reduces anxiety and dropout rates.

Removes the "Digital Wall" of jargon.

Validates individual learning paces.

Ensures access regardless of technological skill.



End of the Unit