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MEdia Literacy for SEnior European citizens

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1. Digital Landscapes and Media Literacy Challenges for Seniors

UNIT 3

Tailoring Training for Seniors

by IDYL Lernen

L1 - UNIT 3

The Unit on brief:

1. Body movement
2. Quality and forms of movement that support and ensure learning and cognitive processes.
3. Neuroplasticity and neuronal regeneration
4. Movement and cognitive processes
5. Learning rhythms. Cognitive/mental and motor alternation.
6. Creation and containment of special learning spaces to ensure the movement.

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“Movement, a fundamental factor in neuronal regeneration and plasticity, and in the cognitive processes of media literacy for senior citizens.“

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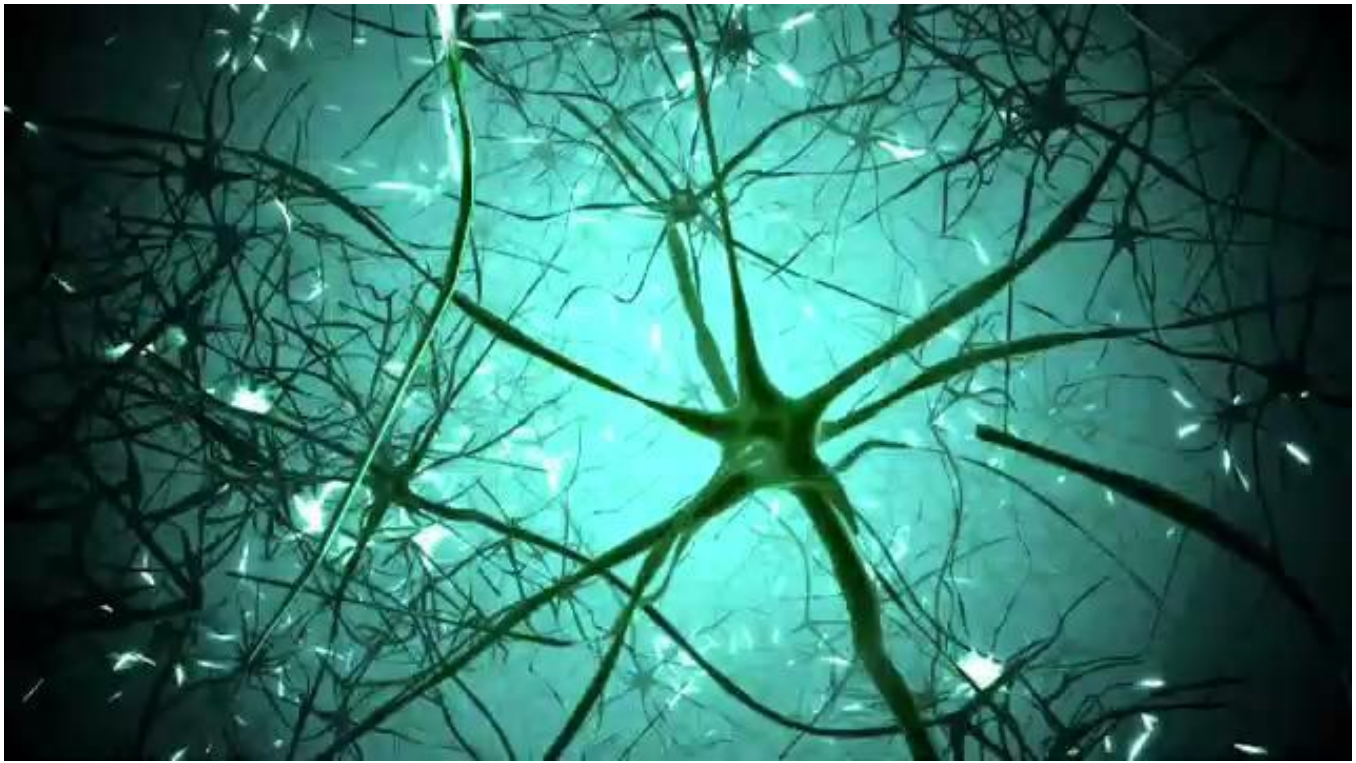

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1. Body movement

- Body movement has a significant influence on **cognitive ability.**
- Physical activity **stimulates the prefrontal cortex and areas** for:
  - attention,
  - memory, self-control,
  - concentration
  - decision-making.
- **The brain has evolved to facilitate movement; cognitive skills are designed for action.**

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- Integrate varied and challenging physical activities into the cognitive process of the MELISE project.
- IDYL's experience in education professionals training
- The fundamental role of body movement.

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2. Quality and forms of movement that support and ensure learning and cognitive processes

Attention focused on an electronic devise:

- forgetting the body
- unhealthy postures
- muscle contractions, pain
- possible rejection of digital activity

Senior media literacy providing:

- innovative learning environment
- knowledge anchoring
- neuroplasticity
- health

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Numerous studies and educational practices have shown that **DANCE is the most beneficial physical activity** because it is:

- complex movement
- motor skills
- coordination
- balance
- decision-making
- use of space,
- joy and relaxation
- sharing the experience

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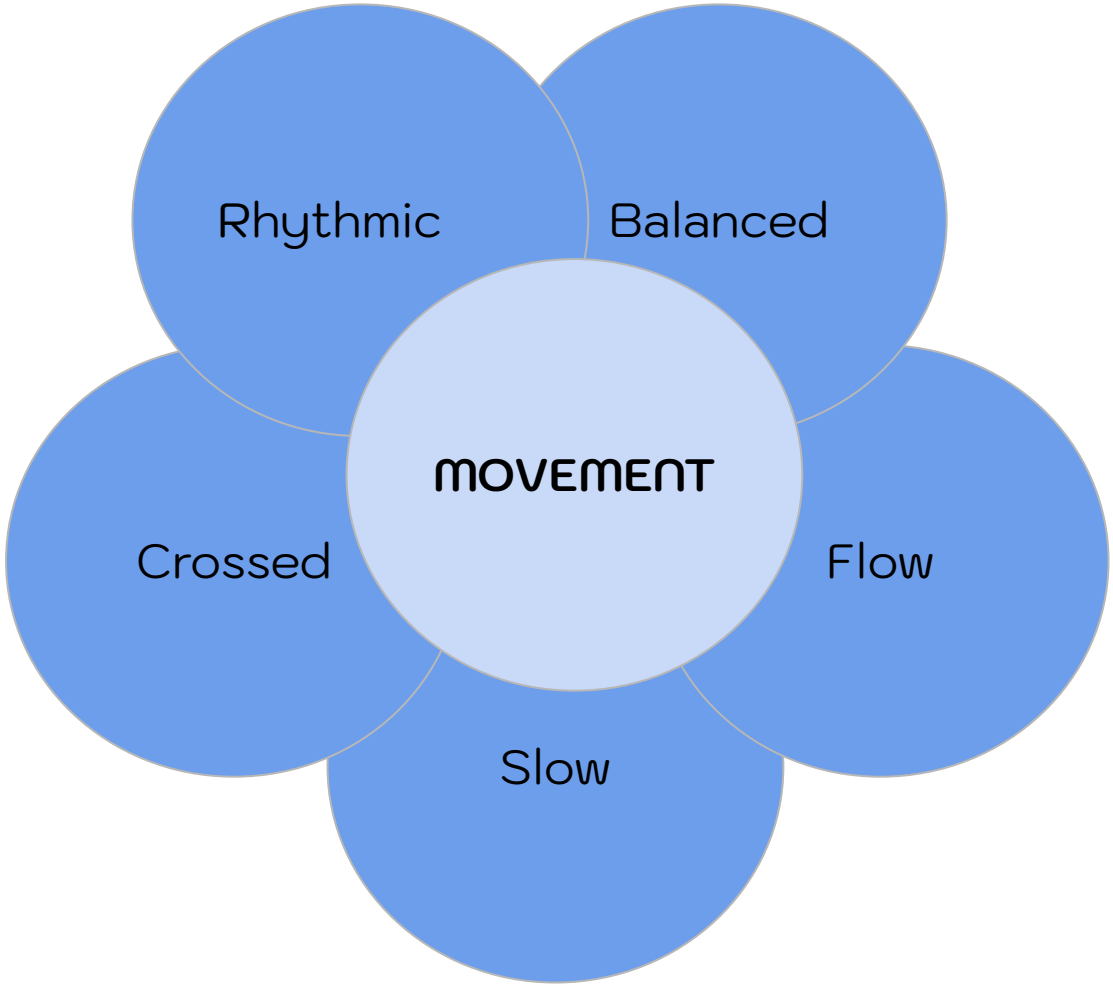
Types of movements



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1. Rhythmic movements.

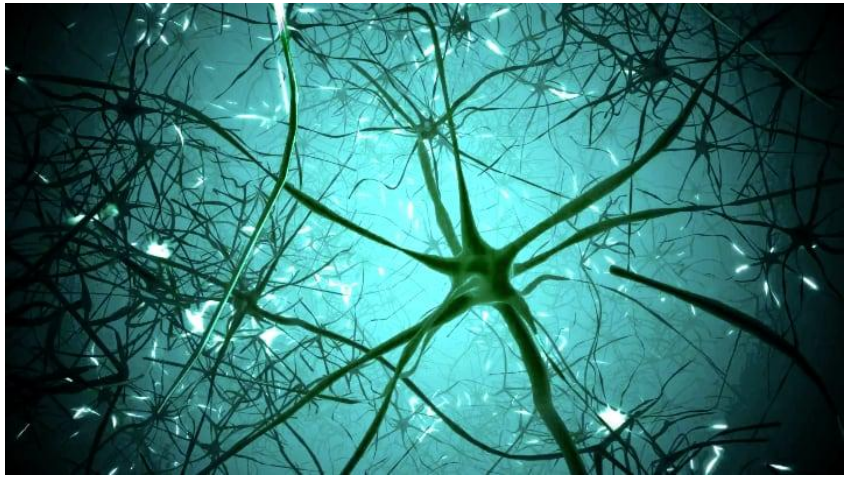
2. Balance training.

3. Movement flows.

4. Slow and controlled movements.

5. Crossed movements.

3. Neuroplasticity and neuronal regeneration



- Physical movement promotes neuroplasticity, which is the ability of the nervous system to change its structure and function.
- This synaptic, structural and functional adaptability allows the brain to reorganise and recover from injury.

Is fundamental to lifelong learning and memory.

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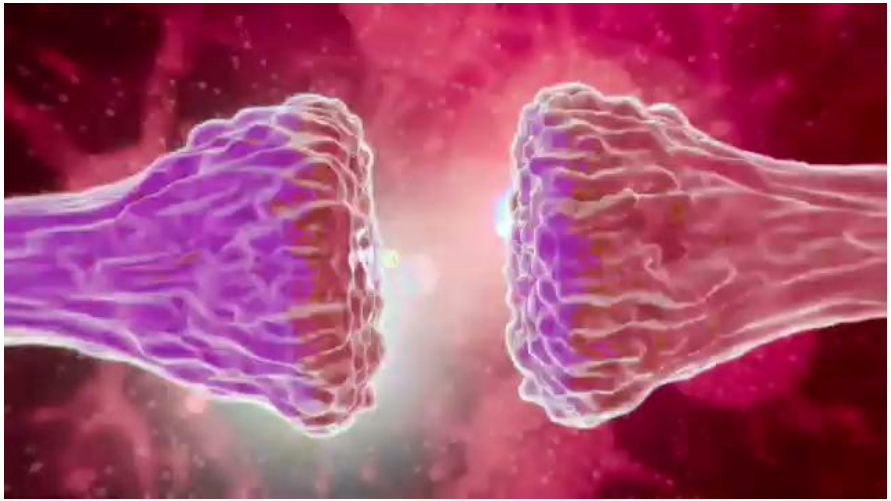
- **Synaptic plasticity** refers to changes in the strength of connections between neurons (synapses).

- **Structural plasticity** refers to changes in the physical structure of the brain, (neurogenesis).



- **Functional plasticity** is the way in which neurons and neural networks function, without altering their physical structure.

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- Physical activity increases levels of **neurotransmitters** such as BDNF (brain-derived neurotrophic factor).

- **Incorporating DANCE** and specific body movements into the media literacy courses is an effective strategy to enhance neuroplasticity and facilitate learning.

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4. Movement and cognitive processes

Movement facilitates motor learning and acts as a catalyst for cognitive learning.

1. **Cognitive stimulation:** learn a new sequence of movements create new neural connections → learning and memory.

2. **Activation of neural circuits:** Dancing activates neural circuits, motor and sensory → short- and medium-term memory.

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3. Improved motor skills:
Balance and coordinated movements → movement perception and spatial memory.

4. Stress reduction and emotional improvement:
Dance → social interaction and emotional expression.

And finally, the **MUSIC**.

It will be helpful to choose music, **that resonates on a cellular level in the participants' body memory** and awakens enthusiasm and joy.

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5. Learning rhythms. Cognitive/mental and motor alternation.

- Understanding how people absorb and process information.
- Alternating cognitive and motor activities offers significant benefits for improving cognitive processes, including memory, attention and neural plasticity.
- Optimal learning environment.
- Alternation is not a break in the flow of learning.

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- Maintain the **thematic flow** and **bring the newly acquired information into the movement.** An improvised dance that includes specific movement as a Leitmotif.

- A first **starting module with music and dance,** breaking the initial ‘ice’ a little bit, relaxing and creating a good group atmosphere.

- **Dance can also** be used as a module to **end the meeting,** after the cognitive/mental and before or after the final Check-out.

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Anchoring movements of knowledge:

- Simple movements, like a symbol, in a clear and repeatable way.
- Can be a crossed movement, continuous flowing, rhythmic, etc.
- To incorporate the information into cellular memory.

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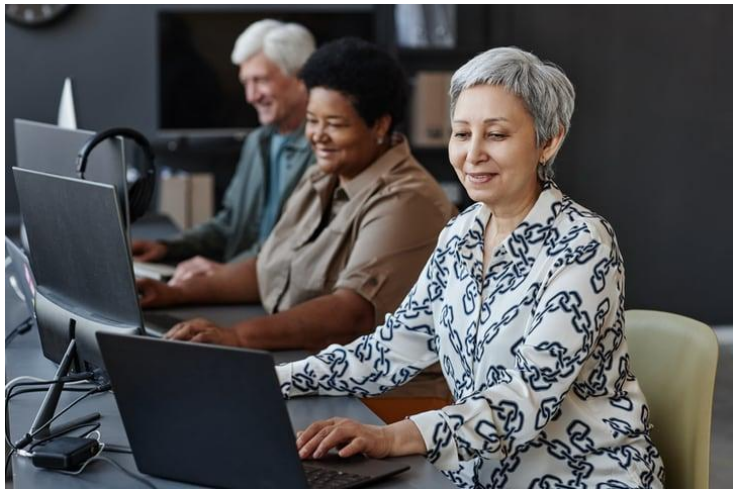
6. Creation and containment of special learning spaces to ensure the movement



- Requires a holistic approach that considers their cognitive, mobility, social and technological needs.
- To create a space for theoretical and technological learning, verbal exchange and dance.

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Here are some ideas for configuring spaces:

- Flexibility and versatility
- Multifunctional spaces and smart zoning.

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- Use of movable whiteboards and dividers.
- Integrated technology and portable technology equipment.
- Mobility, accessibility and free circulation.

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We would like to invite you to find your own rhythm of alternation between theory and practice of body movement, taking into account the people you are working with as well as yourselves.

It is time to innovate and venture to discover the wonderful experience of moving the body while acquiring knowledge.

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Notes

(*) Bar, Rachel J.; & DeSouza, Joseph, F. X. (2016). Tracking Plasticity: Effects of Long-Term Rehearsal in Expert Dancers Encoding Music to Movement. Plos One, 11(1), e0147731. Doi: 10.1371/journal.pone.0147731. https://tinyurl.com/y22twjtn
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Thank you very much

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