The 6 Learning Principles

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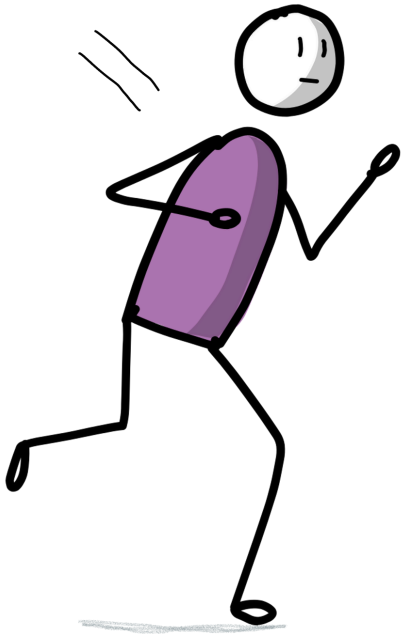
Content from "Using Brain Science to Make Training Stick" by Sharon Bowman

These six brain-based principles from Sharon Bowman help shift sessions from lecture-heavy to learner-centered and brain-friendly. Rooted in research from educators, scientists, and psychologists, they boost retention, attention, and participation. Easy to apply and powerful in practice, they form the foundation of “Using Brain Science to Make Training Stick”. Use them to create dynamic, effective learning experiences that truly engage learners.

Movement



Why it works: Movement boosts focus, energy, and retention. Even brief physical activity improves brain function and helps reset attention.

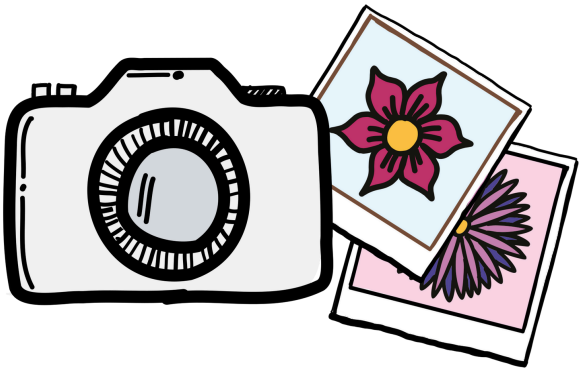
Try this: Include Standing Surveys, Gallery Walks, or a Movement-based Myth or Fact. Build in Stand-Stretch-and-Speak breaks where learners stand, move a little, and talk with a partner.

Talking

Why it works: Verbalizing what we've learned helps organize thoughts and deepen understanding through active recall.

Try this: Use Pair Shares, Teach-Backs, or Peer Interviews to get learners talking and processing out loud.

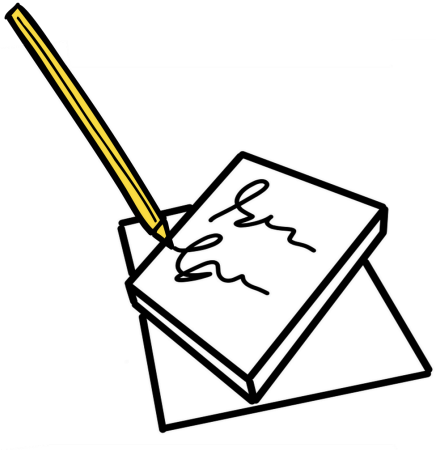
Images



Why it works: Our brains retain visuals more effectively than text alone. Dual-coding and the picture superiority effect mean combining images with words boosts memory.

Try this: Use Quick Draw, Graphic Organizers, icons, or simple visuals to illustrate ideas and encourage learners to do the same.

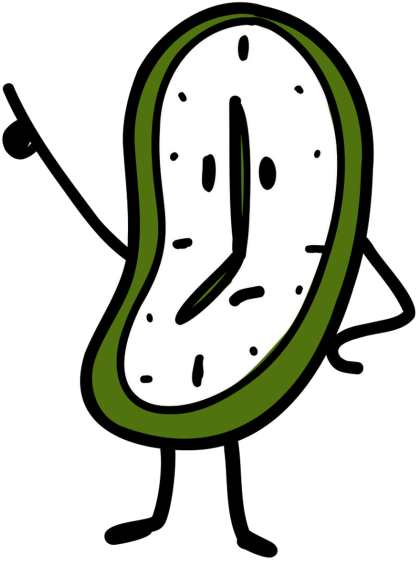
Writing



Why it works: Writing helps encode information in the brain by activating motor memory and forcing learners to process meaning.

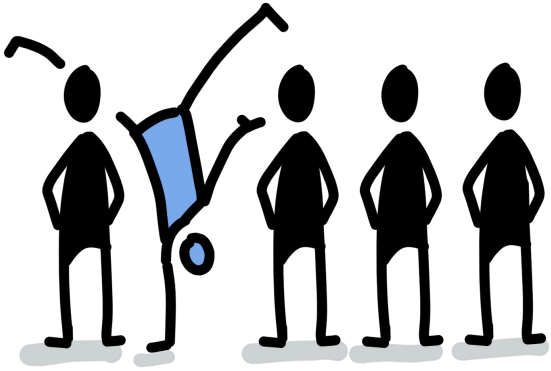
Try this: Have learners complete sentence stems, take notes in their own words, or fill in structured templates like one-minute papers or written reflections.

Shorter



Why it works: The brain can only hold so much at once. Short, focused bursts of content reduce cognitive load and improve learning.

Try this: Chunk your content. Use micro-lectures, brief interactive activities, and clear transitions between sections.



Different

Why it works: Novelty captures attention. The brain filters out repetitive information but tunes in to what's new or unexpected.

Try this: Alternate between slides, stories, props, polls, and unexpected transitions. Vary tone, pace, and format every 10–20 minutes.