

Moving to Learn

Using movement to enhance learning

Moving to imagine

- ▶ Ask learners to act out a concept or phenomenon in their bodies and move accordingly. For example, imagine being on the moon with weaker gravity. Pretend to be a character in a book. Act out the meaning of newly learned vocabulary.

Moving to support skill-building and memorization

- ▶ Use chants, gestures, or body movements to support memorizing lists, processes, or other factual information (e.g., country capitals, chemical elements, the scientific method). Play movement games that make repetition engaging and fun.

Moving to demonstrate knowledge

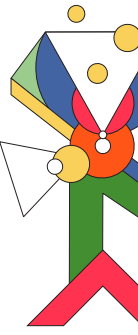
- ▶ Give learners a choice of using movement to show what they know about a topic (e.g., choreograph a dance or series of movements to represent an understanding of a work of literature or art, a scientific process, or a mathematical formula). During formal assessments, offer movement as another way to respond to a question (e.g., ask a learner struggling to answer a test question to demonstrate a principle using hand motions and movement).

Language & Arts

- ▶ After sharing a poem or piece of music, invite learners to pantomime or dance their response to the work before talking or writing about it.
- ▶ As a warm-up for a writing exercise that involves describing emotions, invite learners to move their bodies or use pantomime to better understand and express different feelings.
- ▶ When learning new vocabulary in a first or additional language, encourage learners to act out the meaning of words.

Math

- ▶ Create a large number line. Ask learners to jump over the odd numbers, counting out the even numbers on which they land.
- ▶ Ask learners to physically make a circle and use steps to measure the circumference and diameter of the circle.
- ▶ Post possible answers to questions you have posed (e.g., a math equation) on a wall. Divide the class into teams. The goal is to be the first team (member) to touch or tap the correct answer with a stick. Teams should collectively decide which answer to touch. Keeping score is optional.
- ▶ For math activities that engage the whole body, see www.mathfulplay.org/ as well as www.sidewalkmath.com/.



Science

- ▶ Climate change: Ask students to pretend to be polar bears¹ and roam around the classroom. Then section off half the room as off-limits because of habitat loss. Ask students how they feel. What does habitat loss mean? What new ideas does this give them about the polar bears' experience or climate change?
- ▶ Ask learners to represent the relationship of the earth, sun, and moon with their bodies. Invite them to take turns enacting the celestial bodies as they orbit and revolve.
- ▶ Ask learners to represent how blood flows through the body, circulating and picking up molecules of oxygen in the lungs and sharing them with the organs.
- ▶ To deepen learners' understanding of complex systems and how they work, see [Exploring Systems with Human Machines](#)² and [Exploding Systems with Human Machines](#).³ These tools ask learners to collaboratively use their bodies to represent abstract systems at work and to imagine how they can be changed.

Tips for Using This Tool

- ▶ Invite learners to move around and use materials from their play kit or items in the room, or to draw as they explain ideas or respond to questions.
- ▶ Embrace the choice and autonomy movement provides learners. Encourage students to invent their own movements.
- ▶ Lean into the joy (and sometimes silliness) of movement. Laugh with students and enjoy the experience!
- ▶ While movement can benefit all students' learning, it is particularly helpful to students with limited language skills. Use movement to ensure you are meeting the learning needs of all your students.
- ▶ Set boundaries for safety as needed. For example, if students are invited to move like dinosaurs, it may be okay to stomp and step on the chairs but not bite or hit others.
- ▶ Pair movement with other forms of representation. For example, after learners demonstrate the flow of blood in the body through movement, ask them to draw, write, or talk about their new understandings and questions.
- ▶ If students cannot move around the room, they can perform hand gestures with chants or songs.

Notes

1. We learned about the polar bear activity from Elif Buldu (Bayburt University) and Metehan Buldu (Kirikkale University), Ankara, Turkey.
2. **Exploring Systems with Human Machines:** www.pz.harvard.edu/resources/exploring-systems-with-human-machines
3. **Exploding Systems with Human Machines:** www.pz.harvard.edu/resources/exploding-systems-with-human-machines