



Dr. Roni Zohar: Movements as a Door for Learning Physics Concepts



Dr. Roni Zohar (Ph.D.) is a scientist, lecturer, creator, dance, and improvisation teacher. She believes that movement can promote learning in any field, especially science. Learn how to bring movement into the classroom.

TOP EMBODIMENT TIP: Start with the body and teach from the physical. Movement promotes learning.

Body and Brain Act as One Unit: **We Think With Our Body**

- We use metaphors like “You broke my heart,” etc.
- There is no separation between body and mind.

Embodied Pedagogy: “**Movement is the Door to Learning.**” - Paul Dennison

- We need movement to learn more deeply.
- It’s good to have crosses through the body: left hand to right shoulder etc.
- Every exercise must be 1.5 seconds. Repeat for 4-5 minutes.

Teachers Need to Use Movement in the Classroom: **Students Will Learn Better**

- Every 45 minutes movement is required for the brain to work better.
- Teachers can use this in the classroom for efficacy.

Learn Physics Through Embodiment: **Movement Can Teach Physics Concepts**

- For example friction, gravity, Newton’s First and Third Laws can all be directly experienced in the body.
- Instruction for improvisation will help.
- Radius electron patterns, angular velocity, all of these can be taught through embodiment.

Embodiment is Primary To Understanding: “**Experience first, signify later.**” - Abrahamson

- Start with improvisation and getting into the body.
- Then go through mindful movement.
- With explicit instruction, the embodiment of a specific science concept is allowed.

Resources

- ❖ **Youtube:** [Roni Zohar](#)



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