SUMA project

Synthetic Understanding via Movement Analogies

Learning transdisciplinary concepts

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INTRODUCTION

Contemporary education, based on a fragmented structure of knowledge, contributes scarcely to the development of transdisciplinarity. Body movement can provide an embodied and experientially grounded understanding of transdisciplinary concepts. With the aim to connect movements, general Dynamical Systems Theory (DST) concepts and phenomena at all levels of analysis, a learning platform has been created.

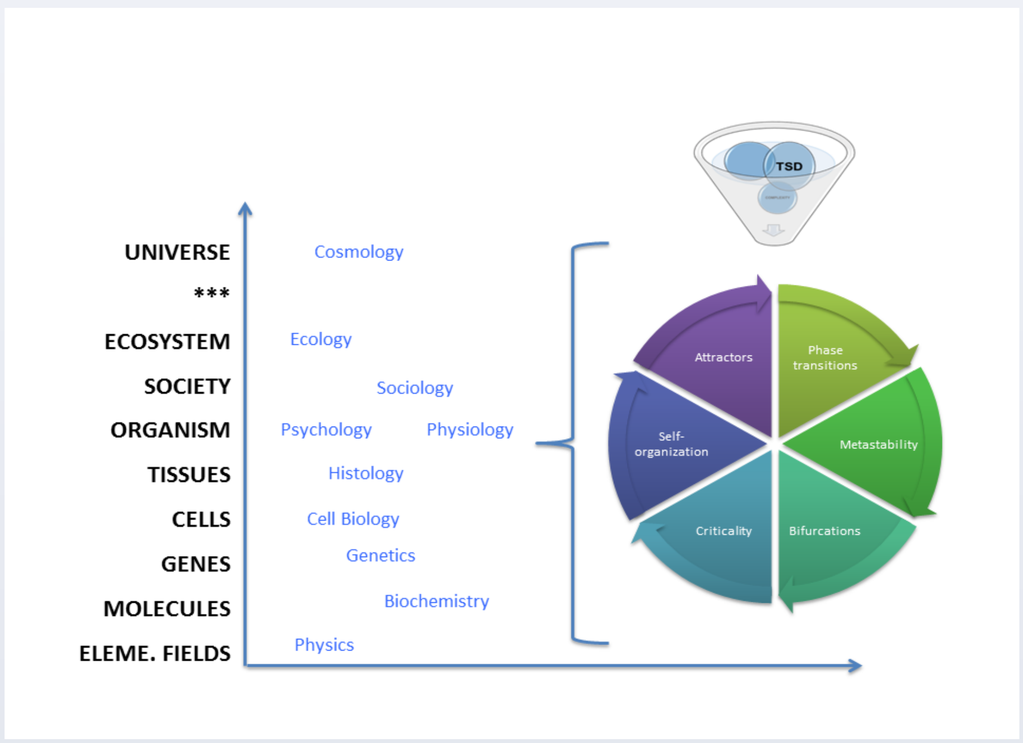


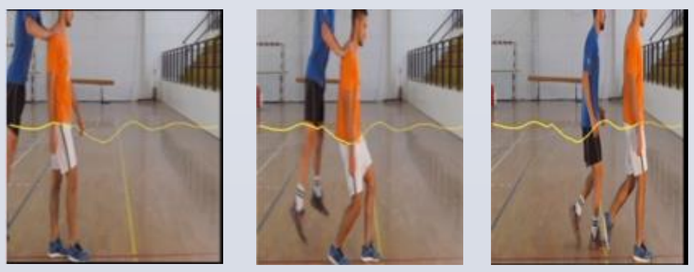
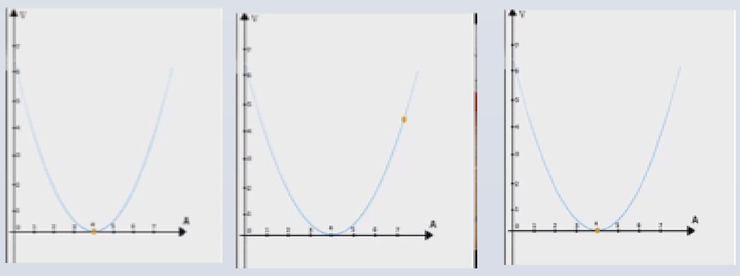
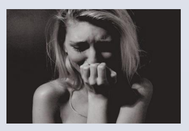
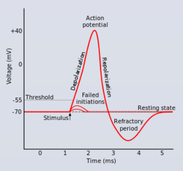
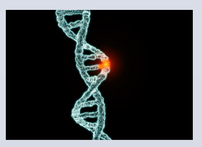
Figure 1.Transdisciplinary concepts of DST

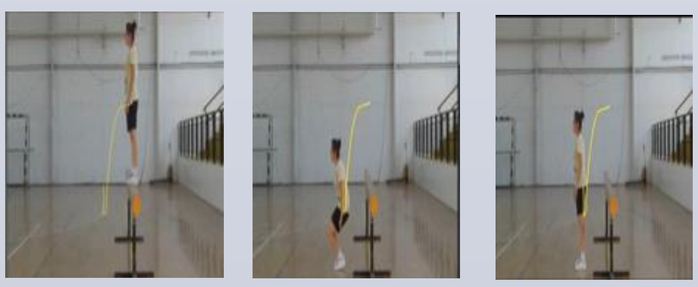
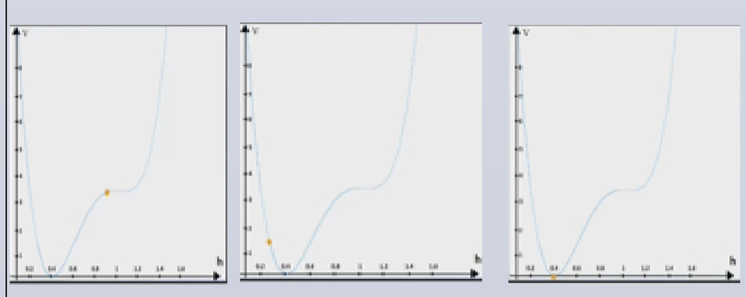
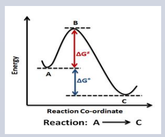
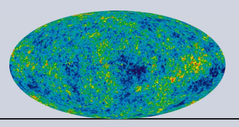
OBJECTIVES OF THE LEARNING PLATFORM

- **Discover and learn *common dynamic concepts of* STEM and Humanities**
- **Promote a *synthetic understanding* and an *integrated world view***
- **Enable *learning transfer* between disciplines**
- **Foster *interaction* between competencies**

LEARNING PLATFORM

http://suma.edu.mk/learning-platform/

Example 1	**General concept: STABILITY** *(Recovery from perturbation)*	
Movement	General Concept	Phenomena
		 Emotional shock  Electrochemical stimulus -cell membrane  DNA mutation

Example 2	**General concept: STATE TRANSITION** (*Switch from a metastable to a stable state after a perturbation)*	
Movement	General Concept	Phenomena
		 Economic crash  Chemical reaction  Cosmic origins

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