Contribution ID: **68** Type: **not specified**

Applications of the learning sciences to the theory of physics education

Wednesday, November 26, 2025 3:22 PM (1 minute)

In the past decade, several research teams have investigated the bio-psycho-social aspects of students and analyzed the basic principles of personality theory, taking into account genetic mapping. Recently developed medical brain imaging techniques, combined with investigations into the fundamental connections between learning theories that encompass psychological, social, and biological aspects, have yielded new insights into learning theories. Our contribution to this research direction is focused in particular on one neurocognitive theory, the Five Pillars of Mind Theory, formulated by Professor Tokuhama-Espinosa in 2017. Five years of research applying this theory to physics education has yielded promising results. In our poster, we present an example of how this theory and other knowledge from contemporary learning sciences are applied to the design of a high school physics final exam.

Pracovisko fakulty (katedra)/ Department of Faculty

KDMFI

Tlač postru/ Print poster

Budem požadovať tlač /I hereby required to print the poster in faculty

Author: DEMKANIN, Peter (FMFI UK)

Co-authors: CERVENOVA, Dasa (FMFI UK); DEMKANINOVA, Diana (FiF UK); ASHOORI, Fatema (FMFI UK); KRALIK, Marek (FMFI UK)

Session Classification: Poster session + káva: prezentácie vedeckých výsledkov FMFI UK didaktika

Track Classification: Poster session + káva: prezentácie vedeckých výsledkov FMFI UK Zamestnanci: Poster session + káva: prezentácie vedeckých výsledkov FMFI UK Zamestnanci Didaktika