

GIREP-EPEC conference 2023 Physics learning promoting culture and addressing societal issues

Contribution ID: 147

Type: Oral presentation

Developing Instrument to Study the Cross-Disciplinary Coherence of Energy Concept image

Crosscutting concepts (CCCs) are meant to foster integration between topics belonging to different scientific domains and are considered one of the pillars of an integrated K–12 science education curriculum. CCCs are expected to provide learners with organizational frameworks for connecting knowledge from the various disciplines into a coherent and scientific view of the world. However, CCCs are often defined and operational-ized incompatibly in different disciplines. Here we describe the development of a questionnaire to study the cross-disciplinary coherence of the Energy concept image.

The questionnaire was administered to teachers and students of different levels. A preliminary analysis will be presented.

How would you like to present your contribution?

Hybrid from my own country (early in the conference day, best for Asia, Australia ...)

Target education level (primary)

In-service teacher education

Target education level (secondary, optional)

Pre-service teacher education

Author: Prof. LEHAVI, Yaron (The David Yellin Academic College of Education)

Co-authors: Dr MERZEL, Avraham; Dr JOUBRAN, Fadeel (The Arab Academic College of Education, Israel); Dr SAKRAN, Fadi (Beit Berl College, Israel)

Session Classification: Physics teacher education

Track Classification: Physics teacher education and professional learning communities