



GIREP-EPEC

Transforming physics learning via Research & Practice
LEIDEN, 2025

Contribution ID: 310

Type: **Oral presentation**

The impact of working with vector models on understanding the concept of vectors in physics

Tuesday 1 July 2025 16:10 (20 minutes)

Vectors are fundamental in physics, yet their comprehension often poses challenges for students. The study demonstrated that manipulating vector models within the Inquiry-Based Learning (IBL) method effectively supports teaching, surpassing traditional methods. Early implementation of this approach in primary schools facilitates understanding of complex concepts in later stages of education.

Education level

Age under 12 (Primary education or earlier)

Physics topic

Other

Research focus

Active learning

Research method

Practitioner's Inquiry / Action Research (Qualitative research)

Organizing preference criteria

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Session Classification: Parallel oral presentations MATH

Track Classification: Interplay of mathematics and physics (MATH)