



GIREP-EPEC

Transforming physics learning via Research & Practice
LEIDEN, 2025

Contribution ID: 220

Type: **Poster**

Stimulation of pupils to experimental activities through learning activities

Monday 30 June 2025 16:30 (1 hour)

This contribution emphasizes encouraging pupils to engage in experimental activities, essential for developing scientific inquiry. The studied stimuli include concept cartoons, role-playing, physics game, an online escape room, and an activity with story. Research involved 341 secondary school pupils (ages 11–15) and their physics teachers. Preliminary findings indicate that pupils felt engaged using these stimuli. Teachers view them as motivating and supportive of experimentation but note that conducting experiments requires teacher assistance.

Education level

Age 12-15 (Secondary education)

Physics topic

Full curriculum

Research focus

Active learning

Research method

Educational design research (Qualitative research)

Organizing preference criteria

Track

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Session Classification: Poster session

Track Classification: Laboratory-based physics (LAB)