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Type: **Poster**

Elementary Pre-service Teachers' Conceptual Representations of Electrical Circuits Functionality

Monday 30 June 2025 16:30 (1 hour)

This qualitative research aimed to identify one hundred and twenty (N = 120) elementary pre-service teachers' conceptual representations of electrical circuits. We conducted qualitative data analysis, constructing a two-choice questionnaire (True/False) with explanations. The result demonstrated that most pre-service teachers advanced erroneous conceptual representations as 1. Current can flow in an open circuit (unipolar model); and 2. The bulb will light up when the electric current stored in the battery reaches its filament.

Education level

Pre-service and in-service teacher education

Physics topic

Other

Research focus

Student conceptions / Preconceptions / Misconceptions

Research method

Practitioner's Inquiry / Action Research (Qualitative research)

Organizing preference criteria

Other

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