



# GIREP-EPEC

Transforming physics learning via Research & Practice  
LEIDEN, 2025

Contribution ID: 74

Type: **Oral presentation**

## **The introduction of circuits in secondary science education: teachers' views on confidence and content**

*Monday 30 June 2025 14:10 (20 minutes)*

Results from a survey of Scottish secondary science teachers are presented. This survey investigated methods of introducing electrical circuits. Biology, chemistry and physics teachers teach science as one discipline in most schools. Results indicate elements of the curriculum as defined are taught, but there is variation in delivery. There is no agreement on definitions, with electrons featuring heavily in those of current. This may be problematic as students move towards later phases of their education. Median confidence in teaching the topic is lower for non-physicists and significant concerns are raised amongst specialists about impact on students.

### **Education level**

Age 12-15 (Secondary education)

### **Physics topic**

Other

### **Research focus**

Innovative instructional strategies and pathways

### **Research method**

Other

### **Organizing preference criteria**

Track

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**Session Classification:** Parallel oral presentations

**Track Classification:** Physics teacher education & Professional learning (TEACH)