

Research Purpose

- to identify students' conceptual understanding of sound wave material through the **Contextual Teaching and Learning (CTL)** model;
- to determine students' understanding of concepts and their errors in comprehending the topic of sound waves

Methodology

- observations and diagnostic test results with several students from Yogyakarta.

87.5% respondents understand the concept of sound waves



- The concept of understanding sound waves is represented by **question number 1**, with a conceptual understanding percentage of 60%, which falls into the moderate understanding category.



10% students chose the wrong answer for the sub-topic properties of sound waves



- A conceptual understanding percentage of 90%, which falls into the category of **very high understanding**.



Results

- ✓ The successful application of **CTL** in this study suggests that physics education can significantly benefit from teaching strategies that promote active learning and critical thinking.
- ✓ The study recommends the broader implementation of **CTL across various subjects** alongside further research to investigate its potential in different educational settings.