

# Language is the bridge that connects what we know about our everyday context to the technical realm of science.

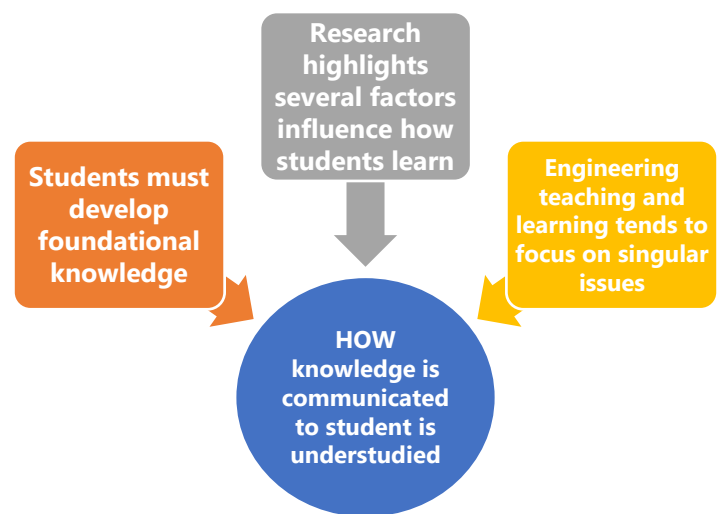
#2237543: *Building a model of instructional congruence through exploring the role of language in introductory undergraduate engineering courses*

## Language in learning



Within any classroom the means by which knowledge is communicated can influence what and how much students learn. In previous work on the role of analogies and metaphors it was found that **instructors often use comparative statements when teaching inherently abstract concepts**, which students in turn use when asked to explain their understanding of these concepts.

## Introductory courses are critical to students' success in engineering.



Despite this piecemeal approach, a **holistic view** of what happens in engineering classrooms, specifically **how language fosters learning is important** as faculty most consider all of these factors simultaneously.

## Methods

Qualitative Research

Discourse Analysis

- Exploration of introductory circuits courses at six institutions.
- Observations of courses, interviews with course instructors and pre-post focus groups with students.
- Qualitative content analysis of data – first independently, then combined.

## Challenge Area

Grant Management

1. What strategies have you found most effective for managing single PI grants in terms of keeping on schedule, potential changes to research plan etc.?
2. How do you successfully onboard new research assistants while also managing all the other project related tasks?

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