



# Idea density, a measure to help second language students and level the field: a multicentre cohort study



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**Aim:** To determine the effect of spoken idea density in lectures on undergraduate student comprehension.

## Background

- Idea density (ID) is the number of propositions in a sentence divided by the total words used (Figure 1)
- ID can be considered a proxy measure for sentence complexity
- High written ID → Increased comprehension time
- The influence of spoken ID is less clear

**More Idea Dense:** “The black cat sat on the mat”

5 ideas ÷ 7 words = **0.71**



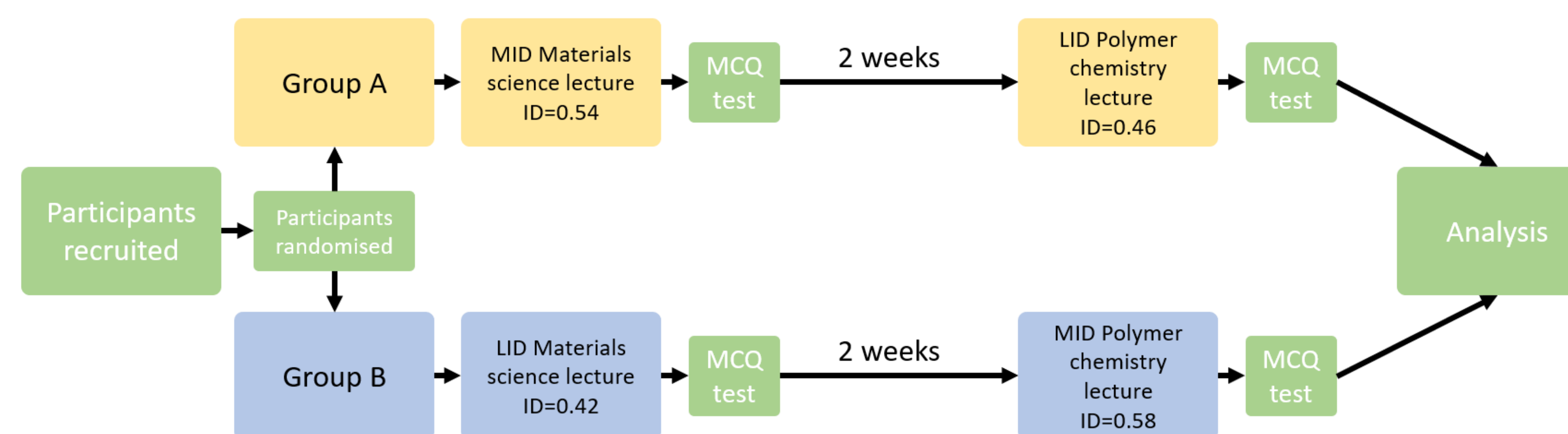
**Less Idea Dense:**

“There is a cat, which is black, and it is sitting on the mat”

5 ideas ÷ 14 words = **0.36**

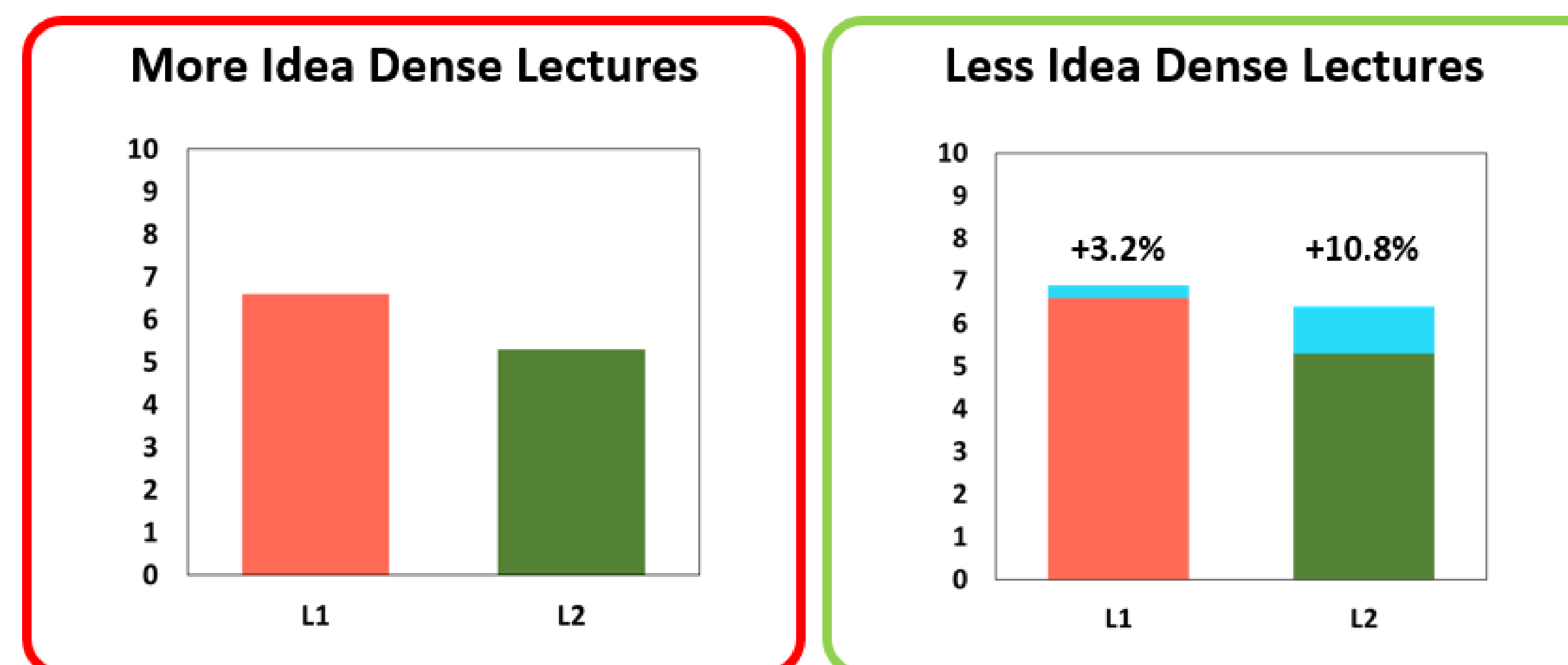
**Figure 1:** Representation of differing idea densities

## How



## What we found

MCQ test performance (/10) after...



Lower idea density – level playing field – reduced attainment differential

Student scores. L1 = 1<sup>st</sup> language English speakers, L2 = 2<sup>nd</sup> language English speakers

## Conclusion

- The ID of lectures directly influences students' comprehension
- Disproportionately for second language speakers

## Impact/Future

- Reducing a simple metric (ID) may help level the attainment differential between L1 and L2 speakers.
- To be explored in cognitive impairment and exams.

## Get in touch

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