

# The effect of contextual informativity on collocation learning and retention

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## Background

- Inferring aspects of the meaning of new vocabulary from its context of use is essential for long-term retention (Nation, 2001)
- The benefit from contextual information depends on:
  - degree of cognitive and mental effort involved in the task (de Bot et al., 1997)
  - degree of informativeness (Hu & Nassaji, 2012; Teng, 2019; Zahar et al., 2001)
  - importance of the word to the comprehension of the text (Brown, 1993)
  - learner-related factors, e.g., L2 proficiency (Teng, 2019)

- Collocations cause considerable difficulty for L2 learners: inferences difficult to grasp due to L1-L2 congruency (Nesselhauf, 2005)
- L2 learners use lexical inferencing for guessing the meaning of collocations (Schmitt & Schmitt, 2020)

1. Do richer, more informative contexts enhance the incidental learning and retention of collocations in a second language?
2. How does informativity work with learner-(prior vocabulary knowledge) and item-related factors (congruency, association strength, corpus frequency)?

## Method

- Participants: 94 university-level learners of English (L1 Spanish)
- Target items: 20 low congruency collocations (e.g., *hot flushes*) > to prevent participants from using L1
  - raw corpus frequency
  - association strength (log Dice score)
- Context informativity (low, mid, high): three short reading passages were created for each target collocation
- Informativity was counterbalanced across lists, with participants seeing one passage for each target item
- Operationalisation:
  - passages were normed with L1 speakers
  - 95% lexical coverage in all informativity levels

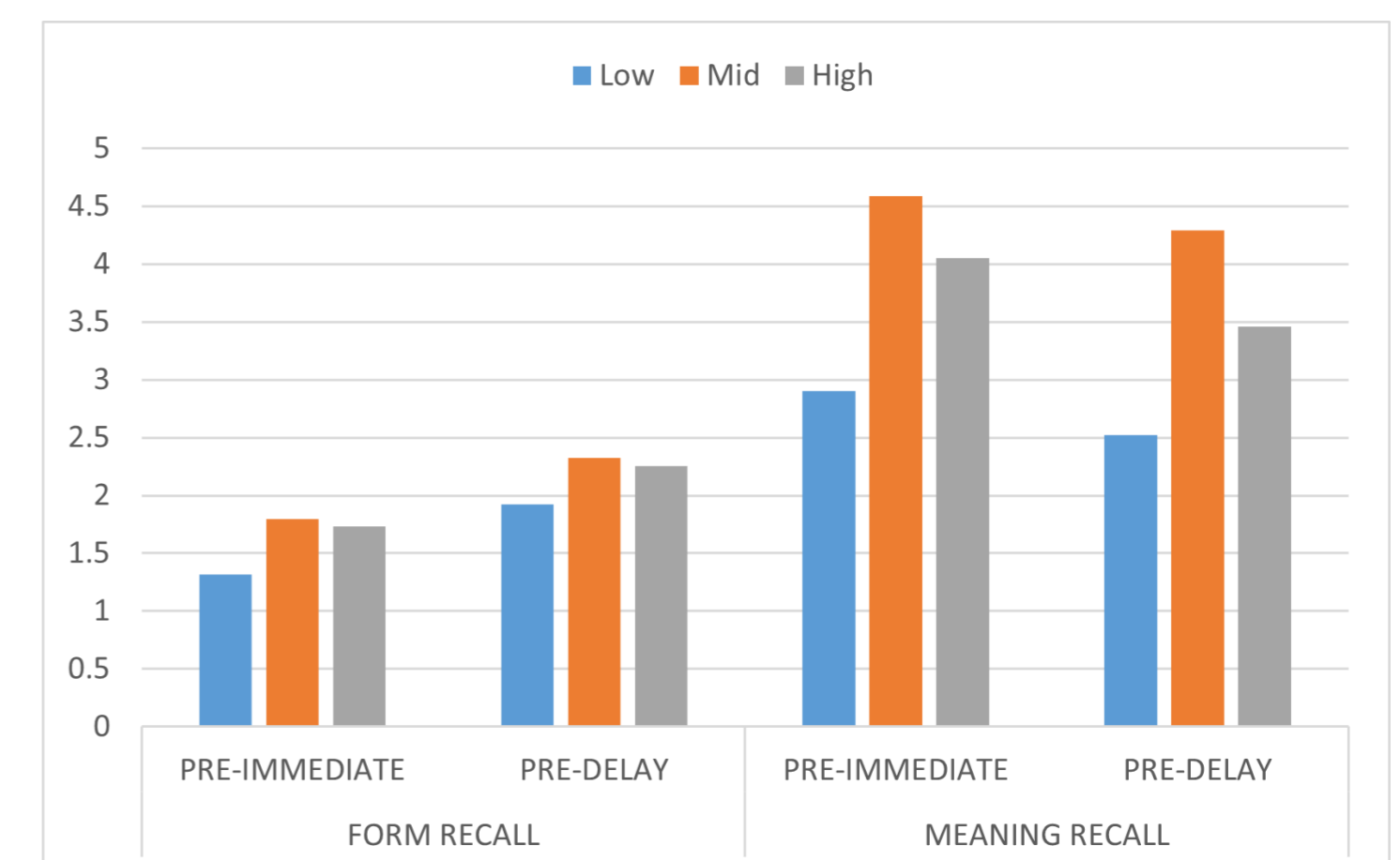
- Measures: Form recall and Meaning recall were tested at two delays (1) immediately after the reading (Immediate), and (2), 2 weeks after reading (Delayed)

- Examples:
  - > (High): The most common trigger for this irritation is exposure to heat for a long time. *Heat rash* is common in people from cooler climates who travel to warmer climates
  - > (Mid): Environmental conditions can also increase how susceptible the body is to specific illnesses. People are more prone to *heat rash* as they get older.
  - > (Low): A fact many people ignore is that certain medicines may lead to insomnia, *heat rash*, decreased libido, and even worsened anxiety.

## Results

- A separate mixed-effect regression model was fit for each test (Form, Meaning) and each delay (Immediate, Delayed)
- Predictors were Informativity, the learners' prior vocabulary knowledge (Vocabulary), and the collocation's L1-L2 congruency (Congruency)

Predictor	Form recall		Meaning recall	
	Immediate	Delayed	Immediate	Delayed
Informativity 1 (low vs mid)	+	+	+	+
Informativity 2 (low+mid vs high)	-	-	-	-
Vocabulary	+	+	+	+
Congruency	marginal	-	-	-



Learning gains for immediate and delayed posttests, relative to pretest

## Discussion

### Informativity helps – to a certain extent

- Context informativity had a significant effect on recalling the meanings and the forms of collocations
- Participants performed better at learning items embedded in semi-informative contexts:
  - Involvement Load Hypothesis (Laufer & Hulstijn, 2001)
  - Cognitive engagement involved in the task (de Bot et al., 1997; Fraser, 1999)

- Easy initial meaning-guessing = poor retention (e.g., Mondria & Wit-de Boer, 1991; Pulido, 2009)

### Participants with larger vocabularies showed greater gains

- Matthew effect (Stanovich, 1986)
- Participants = advanced L2 readers
- Cognate awareness (Chen et al. 2012)

### Context informativity stimulates salience

- Increased noticing of the collocations = more gains
- Context informativity affect vocabulary learning (e.g., Teng, 2016; Webb, 2008)

## References

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