

# A new computerised receptive vocabulary test shows good validity and can estimate the vocabulary sizes of pre-literate English speakers

## Validation of a computerised picture-based receptive vocabulary test for young speakers of English

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### INTRO

- There is a lack of tests that can accurately measure receptive vocabulary size in children, either L1 or L2 (Nation & Coxhead, 2014)
- There is evidence that the word gap in British schools is widening (OUP, 2018) and there is an increase in the number of L2 speakers in schools
- Any assessment or test aimed at tackling these problems must be informed by research

### AIM

Validate a new test of receptive vocabulary size for young speakers (Pic-Lex)

### METHODS

Children aged 3:2–7:9 tested both with Pic-Lex and British Picture Vocabulary Scale (BPVS). N = 40

### PIC-LEX (ALEXIOU & MILTON, 2019)

Pic-Lex is a testing tool designed for young learners with words derived from Kilgarriff's (2016) lemmatised wordlists. It consists of a principled selection of 100 words from the most frequent 5,000 words presented in a multiple-choice picture format. Scores from Pic-Lex can be converted into vocabulary size measures.



Figure 1. Pic-Lex

### RESULTS

- Pic-Lex demonstrated good validity in several areas based on Messick's (1995) validity framework
- Cronbach's alpha = 0.78
- Concurrent validity with BPVS raw scores:  $r = 0.79$ ,  $p = <0.01$
- Vocabulary sizes (below) align with previous research (Anglin, 1993; Biemiller & Slonim, 2001).

Year group (age)	Average vocabulary size
Year 2 (7 years old)	4927.8
Year 1 (6 years old)	4893.8
Reception (5 years old)	4827.8
Nursery (4 years old)	4691.7
Rising Threes (3 years old)	4250

### DISCUSSION

- This research provides evidence that computerised, research-based assessments can be used in school settings
- Can be used on L1 and L2 speakers
- Improvements can be made in areas of interface and word selection

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