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Validating Bundled Gap Filling – Empirical Evidence for Ambiguity Reduction and Language Proficiency Testing Capabilities

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Types of Gap-fill Exercises

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The students have to ___ the test.

- high ambiguity
- production task

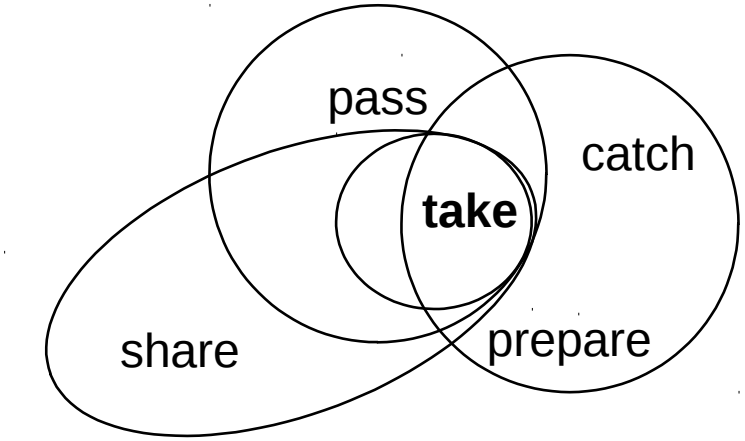
The students have to ___ the test.

a) take
b) fold
c) entertain
d) fry

- low/moderate ambiguity
- recognition task

Bundled Gap-fill [Wojatzki et a. 2016]

The students have to ___ the test.
Their cook will ___ three salmons.
All passengers should ___ their seats.
Both authors ___ credit for this.



- low ambiguity
- production task

Approach

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g_1:"*The kids have to ___ their lunch.*"

Approach

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For any given context, find additional contexts that resolve as much ambiguity as possible

$$D(b) = log \frac{P(F(b) = t)}{\max_{w \in V \setminus \{t\}} P(F(b) = w)}$$

- Evaluation so far:
  - bundles decrease error rates
  - r=.66

	Average Success Rate	Average Disambiguation Measure
Single Gap	.27	-0.50
$Bundle_2$	.59	4.00
$Bundle_3$	.68	7.75
$Bundle_4$	.78	11.06

Ambiguity Reduction & Language Proficiency Testing

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- RQ1: Ambiguity reduction due to algorithm or bundles?
- Compare 3 conditions:

  1.maximize:

  2.minimize:

  3.random: randomly created bundles

RQ2: Relation to language proficiency tests (*cTest*)?

Results on the poster

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ASK ME ANYTHING