

# Assessing vocabulary knowledge in learners with EAL: What's in a Word?

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NALDIC CONFERENCE, 2015



**naldic**  
National Association for Language Development in the Curriculum

*the national subject  
association for EAL*

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# What do you know when you know a word?



## Receptive Knowledge

- *Aural word recognition (spoken form)*
- *Orthographic word recognition (written)*
- *Recognizing parts (morphology)*
- *Particular meaning*
- *Meaning in context*
- *Understanding of concept*
- *Knowing related words*
- *Identification of correct word use*
- *Recognition of typical collocations*

## Productive Knowledge

- *Able to say word (correct pronunciation)*
- *Able to write word (with correct spelling)*
- *Derivation of word from correct word parts*
- *Production of target word to express meaning*
- *Production of word in different contexts*
- *Synonyms*
- *Commonly occurring words (with target)*
- *Able to decide whether to use it*



# Does size matter?



- The typical child entering formal education (primary) knows approximately...
  - 10 k words
- Native speakers are estimated to have a vocabulary size of around 60k when they leave formal education (end of secondary)
- How do they learn these additional 50k words?



# How many words are enough for non-native speakers?



- How much vocabulary a non-native speaker needs depends somewhat on the kind of word it is...





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# EAL achievement in the UK



Research in  
English as an  
Additional  
Language

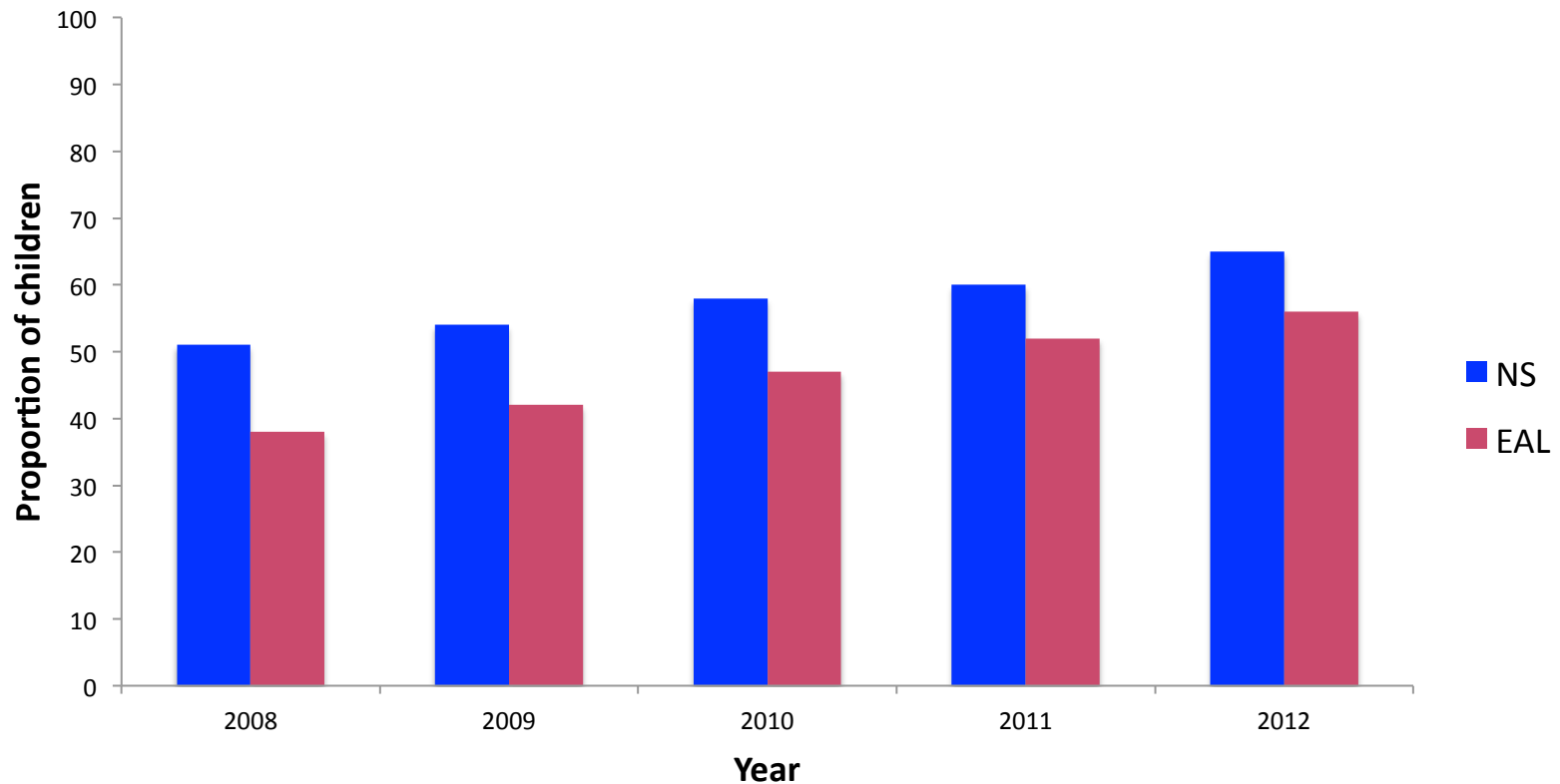
- Although the academic achievement of children with EAL varies widely, there is a general trend not to match the educational achievement of monolingual English-speaking peers throughout the primary years – particularly in EYFS (DCSF SFR 31/2009; DCSF SFR 33/2009; Strand et al, 2015).



# Early Years Foundation Stage



## Proportion of children achieving a 'Good Level of Development' on the EYFSP





# What we do know...



- **Demie (2013)** – even in a LA considered highly successful in support for EAL – takes on average 6 years to become fully fluent in English and catch up with peers (varies by ethnic group)
- EAL children are not a homogenous group (**Strand & Demie, 2005; Demie & Strand, 2006; Strand et al., 2015**)
- **Cummins (2000)**
  - EAL children can quickly develop *conversational* fluency in the dominant language when exposed to it in the environment and school
  - Generally takes a minimum of 5 years (and frequently much longer) to catch up to NS in *academic* aspects of language.
- **Hutchison et al (2003)** – EAL children at least one year behind majority language peers on measures of both reading and listening comprehension.



# Role of Vocabulary



- We know vocabulary is a strong predictor of reading comprehension (e.g., Nation & Snowling, 2004; Cain et al., 2004; Roth et al., 2002)
- We know children with EAL have less vocabulary knowledge (small vocabulary sizes) than NS children (e.g., Cameron, 2002; Bialystok et al., 2010)

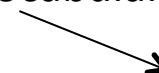




# EAL learners and vocabulary

## Previous UK EAL research:

- EAL children score significantly below their age-matched EL1 peers on measures of Expressive vocabulary breadth and Receptive vocabulary breadth



Tester: (points to picture of a lighthouse)  
“What is this?”

Child: “Lighthouse”

Tester: (points to four pictures, one of which shows a lighthouse) “Which of these shows a lighthouse”

Child: points to the picture of a lighthouse

- The relationships between vocabulary breadth and comprehension are stronger for EAL than for EL1 children
- The relationship between expressive vocabulary breadth and reading comprehension is particularly strong for EAL children

(Beech & Keys, 1997; Burgoyne et al., 2009, 2011a, 2011b; Cameron, 2002; Hutchinson et al., 2003; Stuart, 2004).



# What's in a word?



## Vocabulary Breadth

v

## Vocabulary Depth

I'm a Dog!



**Definition:** "a domesticated mammal with four legs"

**Synonyms:**  
n. canine

**Use in multiple contexts:**  
v. afflict, plague, trouble

**Idioms & Collocations:**  
"It's raining cats and dogs"  
"The book's pages were dog-eared"  
"dog days"  
"in the doghouse"

**Word associates:**  
n. cat

**When not to use it:**  
(to a girl) "Your girlfriend is such a dog!"

**When to use it:**  
(referring to a pet)  
"What a cute dog!"



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# Why worry about these other types of word knowledge?



Research in  
English as an  
Additional  
Language

- Martinez & Murphy (2011)
  - Adult L2 learners of English (intermediate +)
  - Measure of reading comprehension of texts which differed on idiomaticity but matched vocabulary
  - Measure of self-perceived comprehension



# Martinez & Murphy, 2011



exact  
same  
words

Let me tell you about my home. It's on this little hill out in the country. But I'm not far from the city (I don't like the city – do you?) – not much time to get here. I can't wait to show you a photo... or you can call me to come over to see in person! 07786 237 679

all very  
frequent  
words  
(top  
2,000)

I don't get out much – it's about time I do. I'm not from here – this country or city. (But I like this country.) I'm far from home. I'm a little over the hill, let me tell you, but you can't tell! (I can show you my photo, or wait to come see me in person!) Call me on 07786 554 0978



# M&M, 2011: Results



- Significantly higher accuracy for less idiomatic texts
- For non-idiomatic text:
  - No difference between actual and reported comprehension
- For idiomatic text:
  - Significant difference between actual vs. reported where reported was ***over-estimated***.
- The finding has been replicated with children learning EAL in English primary schools (Kan & Murphy, in prog)

I don't like to go out much. The thing is, I have two left feet and I need to watch my spending. Now, for what it's worth, every so often I do have a ball playing football with my kids (my kids see me through the day) and even having one drink on occasion. (And not two at a time!) But I never get carried away or lose it. Having a good time doesn't have to be hard or cost you an arm and a leg. (Mind you, I'm not flat broke!) I'm a real team player, looking out for others all the time – especially my special kids. With my kids, a good time is to be had every time.

- 15. ☐ She does not know how to dance well.
- 16. ☐ She thinks football and drinks are worth the money.
- 17. ☒ She frequently plays football with her children.
- 18. ☐ Her children are with her most of the day.
- 19. ☒ She drinks when it is a special occasion.
- 20. ☐ Her arms and her legs have been injured, but not completely broken.
- 21. ☐ She is looking for more players for the football team.

My comprehension of this text: 5% 25% 50% 75% 100%



# Multi-word Vocabulary in EAL children



- Multi-word phrases (like collocations) are ubiquitous in naturally occurring discourse – nearly 500 collocations in the top 3k most commonly used word families (Martinez & Murphy, 2011; Erman & Warren, 2000)
- However, few studies have measured phrasal language in children, particularly in L2 (EAL) children





# Smith & Murphy, 2015



- Purpose to develop a test that could tap into multi-phrase knowledge in L1 and EAL
- 108 children in years 3, 4 and 5;
  - 68 L1, 40 EAL (convenience sampling)
- EAL children had been educated in English since Year 1 and had a range of L1s: Bengali (14), Mandarin (1), Egyptian Arabic (1), German (1), Hindi (1), Italian (1), Kiswahili (1), Konkani (4), Malayalam (2), Portuguese (1), Somali (1), Tagalog (2), Tamil (2), Turkish (1), Urdu (6).
- Also tested on Nonverbal IQ (**WASI**), Receptive Vocab (**BPVS**), Expressive Vocab (**TOWK**), ACE 6-11 (Crutchley, 2007), Reading Comprehension (**YARC**), and given an **LBQ** (adapted from Beech & Keys, 1997)





# Assessing collocational knowledge



- Verb + object multi-word phrases:
  - Why? Numerous in English, both high and low frequency and range from literal to non-literal
  - All items had a mutual information (MI) index of  $> 2.5$  suggesting a 'significant collocational link' (Church & Hanks, 1990)
  - Transparent, semi-transparent and non-transparent items
  - Verbs selected on frequency of use (BNC & CHILDES) (top 1k) and objects top 5k

|   |           |
|---|-----------|
| 7. Sam talks to his friends during lessons and doesn't _____. |           |
| break   | studies   |
| catch   | attention |
| pay   | work      |



# Smith & Murphy, 2015, Results



- **L1**: significant increase between Years 3 and 4 on transparent, and semi-transparent, but not on non-transparent. Increase between years 4 and 5 on non-transparent.
- **EAL**: no difference between years 3 and 4. Year 5 > than year 4 on semi- and non-transparent items.

## Suggests a different developmental trajectory?

- multi-word task accounts **25% in reading comprehension** controlling for language background, nonverbal IQ, and receptive and productive vocabulary knowledge.

Multi-word knowledge might therefore:

- a) develop differently in EAL relative to L1 children
- b) be an important predictor of reading (comprehension)



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# How do we support the vocabulary development of EAL children?



Research in  
English as an  
Additional  
Language

- It is particularly important to develop the vocabulary abilities of EAL children, as the relationships between word-level semantic skills and the sentence/discourse level semantic skills essential for reading comprehension are stronger for EAL children than for their EL1 peers.



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# Some myths about vocabulary teaching and learning



Research in  
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Language

- **Explicit teaching doesn't work**

For learners who have sparse vocabulary knowledge, and who need to learn lots of words quickly in order to catch up, explicit teaching of some carefully chosen words can be very productive and efficient.

- **Word meanings can usually be inferred from context**

- *Cleopatra's subjects were amazed at her pulchritude.*

- *Cleopatra was popular because of her beauty; her subjects commented approvingly on her pulchritude.*

- **We can learn a word from just a few exposures**

- Multiple exposures are needed to nail down the meaning, to get clear exactly how the word is used, and to be sure it is remembered.

- **Word meaning is simple—a word means what it means**

- His problems continued to dog him; Let's table the motion and consider it tomorrow.

- **Students know when they don't know words**

- we should not be fooled into thinking that poorer readers always know what words they don't know.

- **If you can spell/pronounce a word you know it**

- knowing about meaning and use is much more important than just being able to say the word correctly when it is encountered in print.



# Proven approaches to word learning



- **Meaningful exposures**

These exposures should not be memorization exercises, but rather meaningful interactions with words in a variety of different contexts.

- **Meaningful use**

-Students should think actively about what words mean and how those words connect to other words and be encouraged to *use* the words they are exposed to!

- **Polysemy**

-Providing access to these meanings and direct instruction about when these various meanings are applicable will help students develop deeper understanding of words.

- **Structural analysis**

-teaching students to recognize the various elements of a word is a highly effective means of expanding their vocabularies (Nagy, 1999). E.g. the prefix un- (unhappy, undo) can be used to begin deciphering the meaning of many words.

- **Cognate identification**

Cognates are a good source of information for English language learners, where possible.



# Summary/Conclusions



- Words come in all shapes and sizes
- We need to consider *all* varieties of word knowledge in our assessment and teaching of vocabulary to *all* children.
  - But this is particularly important for (some) children with EAL who have smaller vocabularies

# Thank You

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