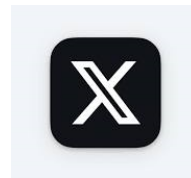




Reading & Vocabulary: Insights from Research

Professor Jessie Ricketts



@ricketts_lara

Collaboration: researchers,
practitioners, charities



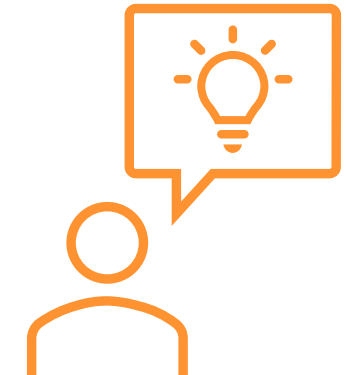


For yourself, for your students?

To your students?

Different things to different people

Broad definition of reading, being a reader...



Background

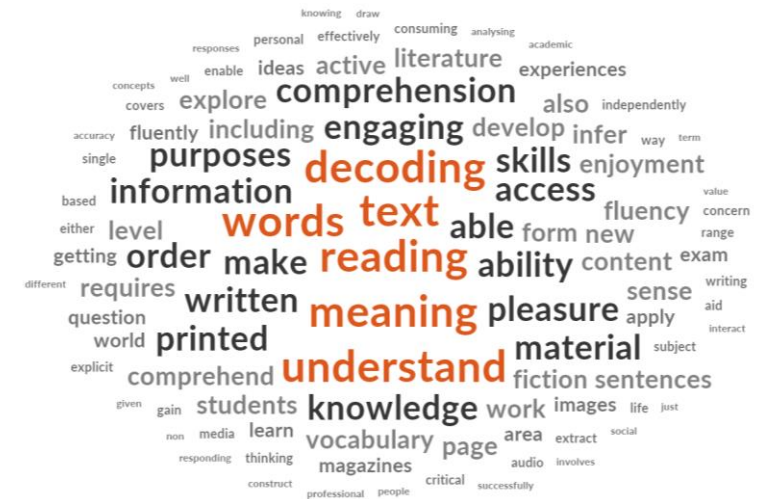
What do we know?

What can we do?



Background:

Establishing a shared understanding of reading



What is reading?



word
recognition



Mockingbirds don't do one thing but make music for us to enjoy. They don't eat up people's gardens, don't nest in corncribs, they don't do one thing but sing their hearts out for us. That's why it's a sin to kill a mockingbird.

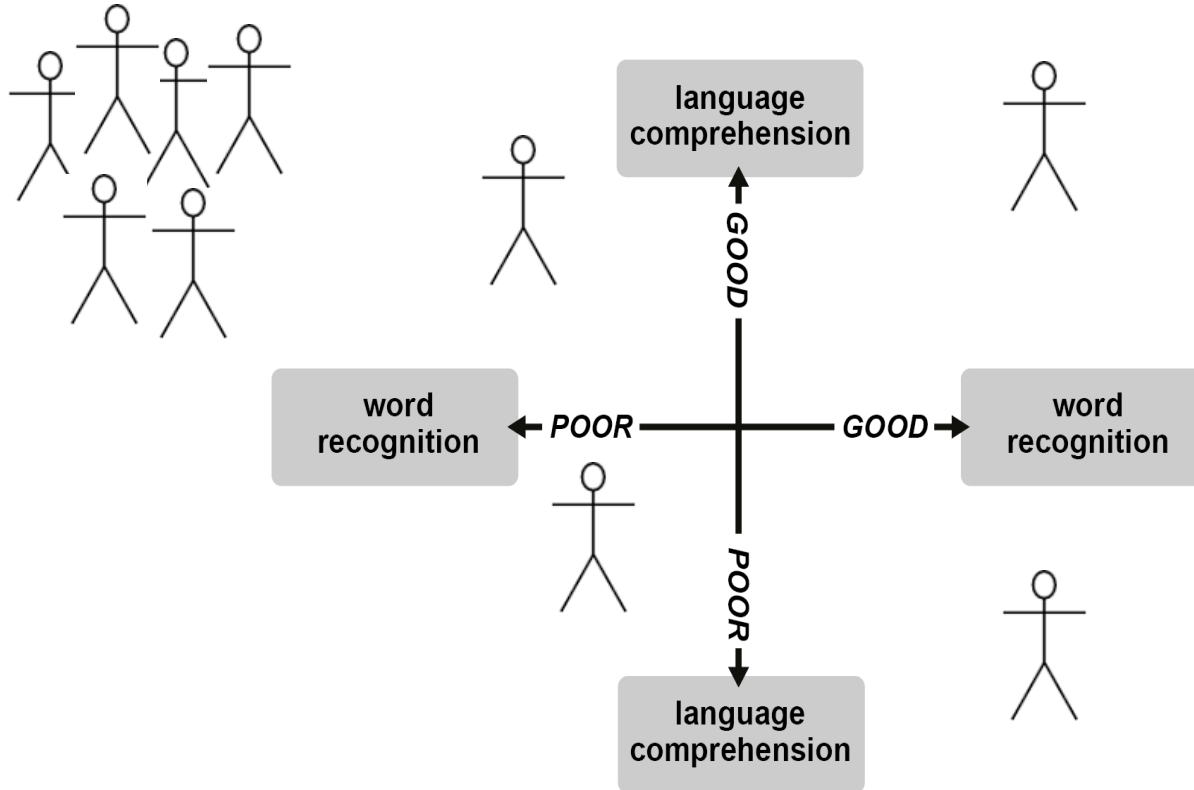
language
comprehension



A broader definition of reading

- Knowledge and skills, but also:
- behaviour (e.g. frequency)
- affect (e.g. motivation, engagement)
- (and lots of other things, there are many definitions of reading)

What is reading for us, today?



The Simple View of Reading

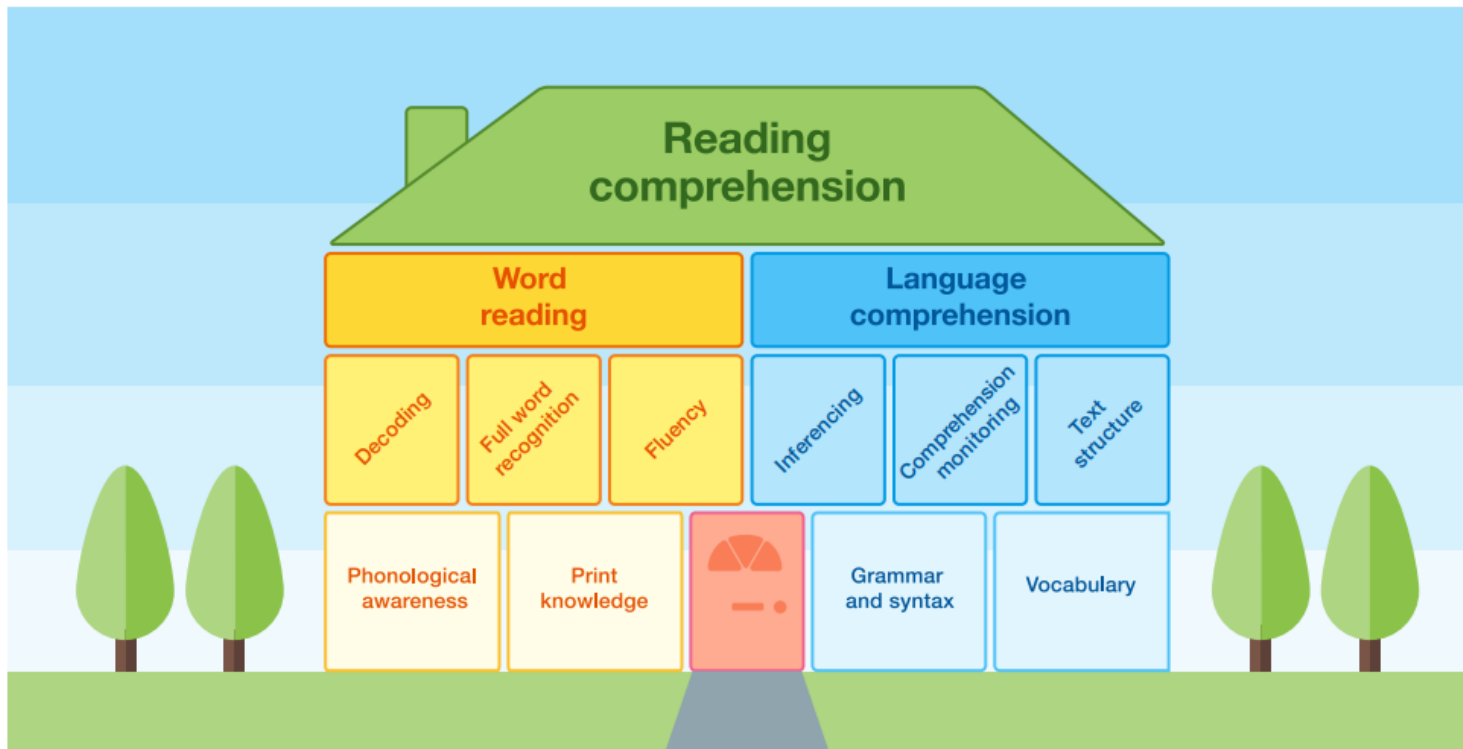
- Both word recognition and language comprehension are necessary for successful reading, neither sufficient
- Relative contribution changes with age and experience (e.g. Nation, 2019; LARRC, 2015)
- Learning to read and teaching of reading is not simple but framework is simple
- Adopted by Rose Reviews (2006; 2009), National Curriculum 2013 and in initial teacher education

Another way of representing this



The Reading Comprehension House

Adapted from Hogan, Bridges, Justice, and Cain (2011)



Both word reading and language comprehension are complex, in their own right

Many pressure points or barriers to successful reading

Indicates 'teachable' aspects of reading

<https://educationendowmentfoundation.org.uk/news/eef-blog-supporting-reading-comprehension-in-key-stage-2>

Is the simple view too simple?



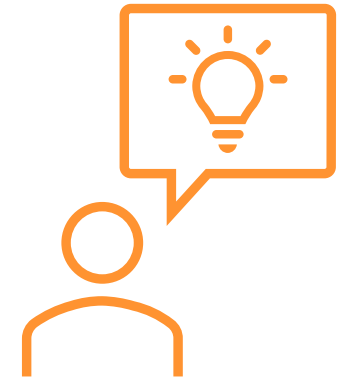
What else is important for reading success?

word
recognition

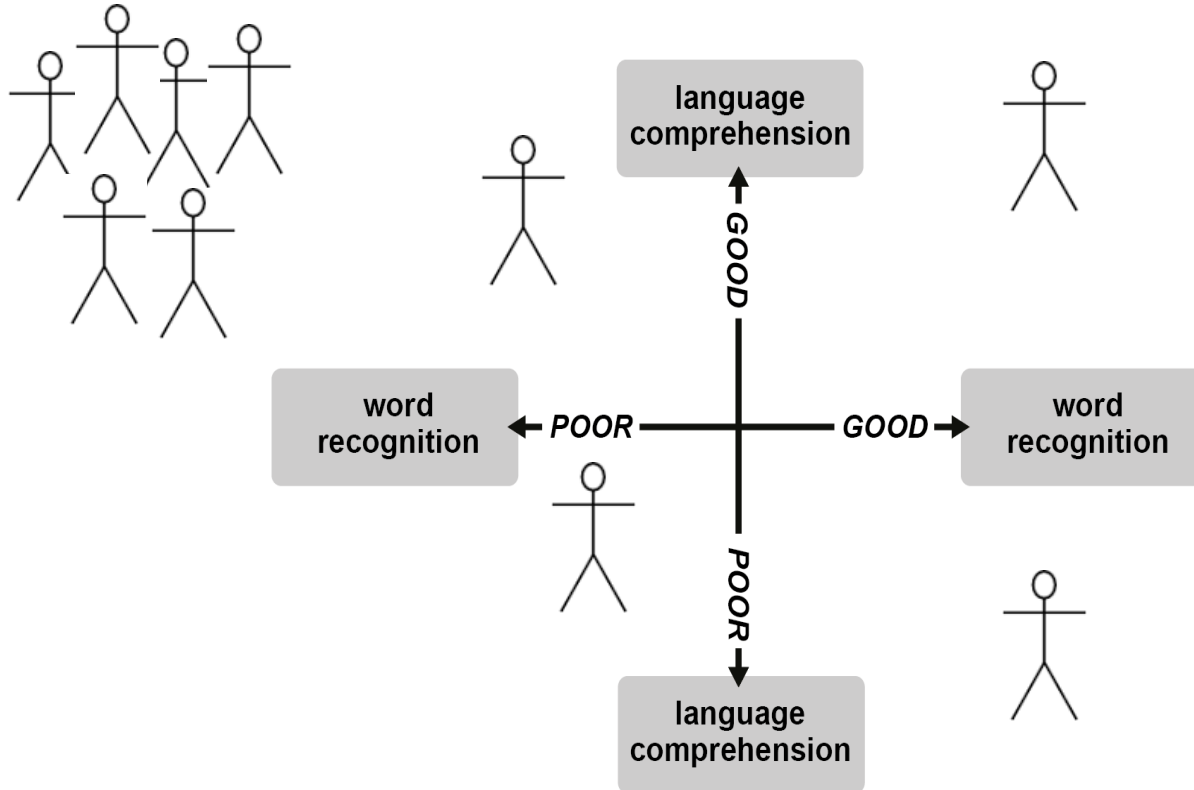


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language
comprehension



Simple but effective



Explains variation

Specifies need

Target teaching, support
and intervention

Evaluate practice

Background

What do we know?

What can we do?



What do we know?

Development

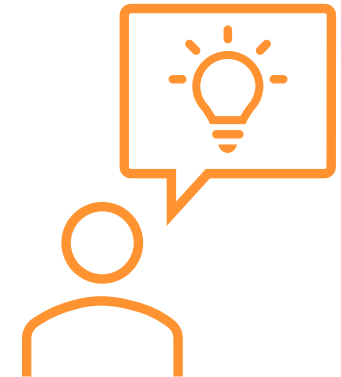
We need longitudinal research...

Reading development



Can we put these in order of onset:

- Word reading
- Phonics
- Knowledge of letters
- Reading comprehension
- Knowledge of sounds
- Reading fluency
- BUT not stage like, mostly overlapping!



Word reading (in English)



orthography
(print)



phonology
(sound)

bed

chicken

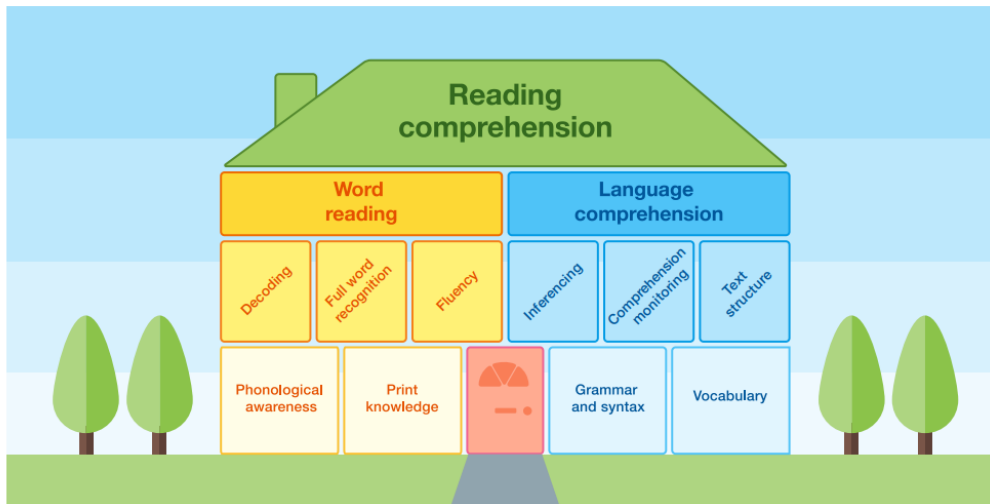
brooch

ganten

mip

yacht

Adapted from Hogan, Bridges, Justice, and Cain (2011)



NB a nonword is a nonword until you assign meaning to it
e.g. brooch until it is encountered, ganten in China...



Why is phonics important?



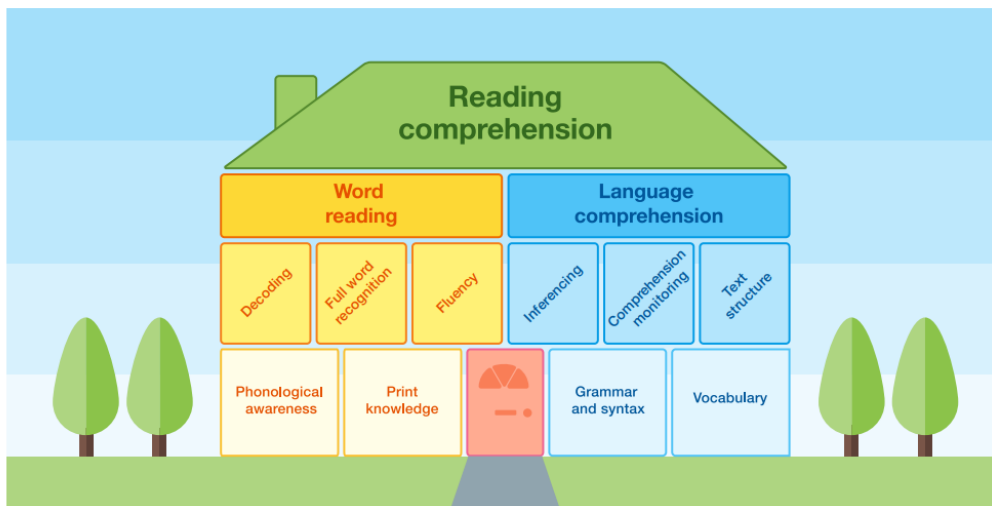
- There is a code (though it isn't perfect)
- We have a choice: teach it or hope children will learn it for themselves
- Once children have some phonics knowledge, they can self-teach
- The self-teaching hypothesis (Share, 1995)
 - Decoding attempts -> storing words in memory so they can be recognised efficiently later
- And efficiency is important to free up bandwidth for...

Reading comprehension



- Underpinned by a complex set of knowledge and skills
- Building a mental model, active, constructive
- Dependent on accurate and efficient/fluent word and text reading

Adapted from Hogan, Bridges, Justice, and Cain (2011)



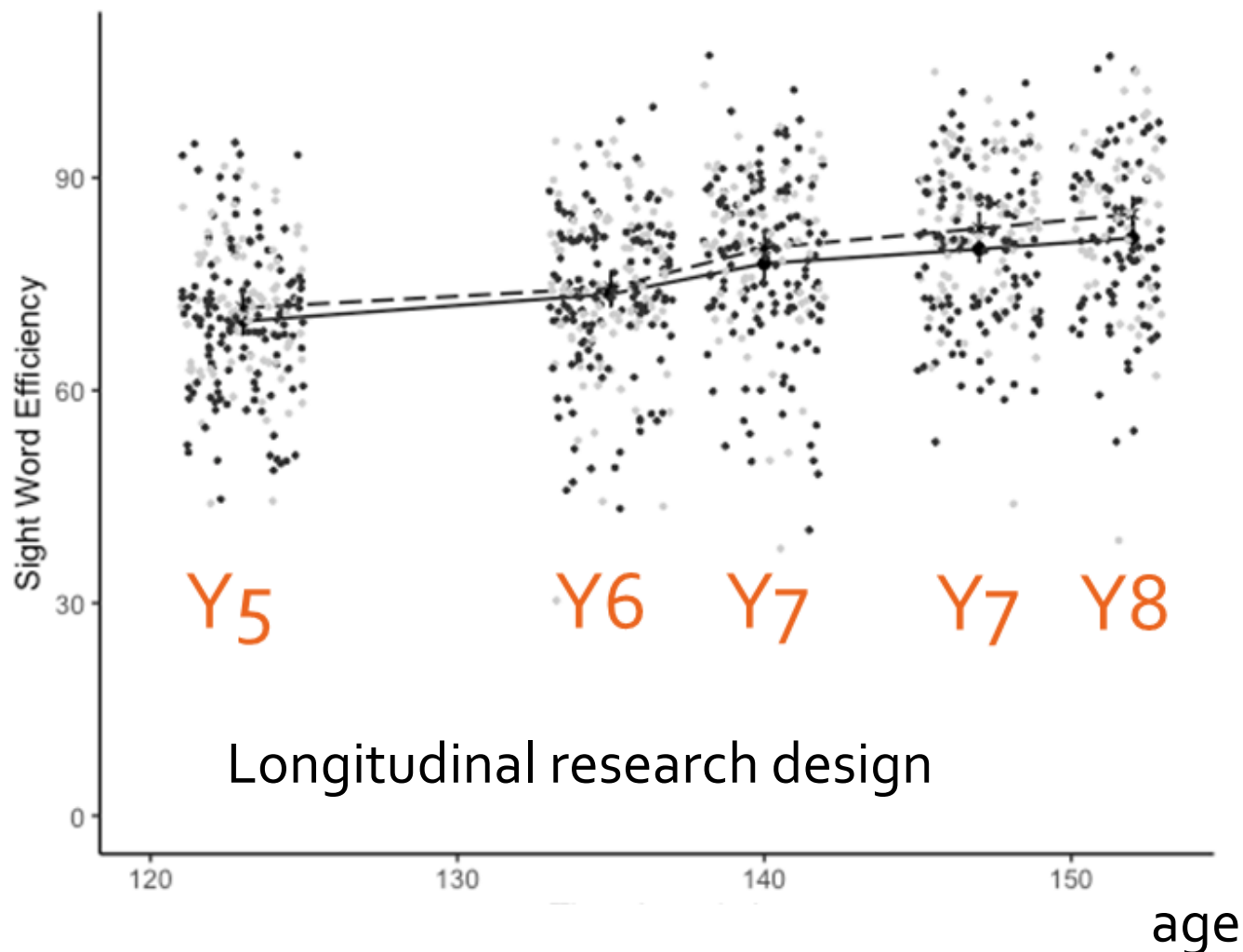
John had got up early to **learn his spellings**. He was very tired and decided to take a break. When he opened his eyes again the first thing he noticed was the clock on the chair. It was an hour later and nearly time for school. He picked up his two books and put them in a bag. **He started pedalling** as fast as he could.

Literal question: What was John trying to learn?

Inference: How did John travel to school?

Oakhill (1984)

Longitudinal data



Longitudinal research design

- Enormous variability
- High levels of need
- Huge challenge
- Need robust processes for:
 - identifying need (confirm, specify)
 - aligning to support
 - monitoring impact
- Assessment framework and roadmap of provision

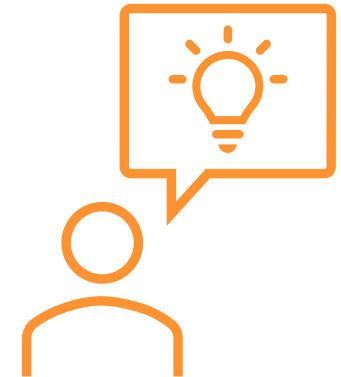
Reading (literacy) and oracy



- How are reading and oracy related?
- Speaking, listening, reading, writing
 - Note: vocabulary knowledge is a building block for all



Oracy commission report
published 8.10.2024



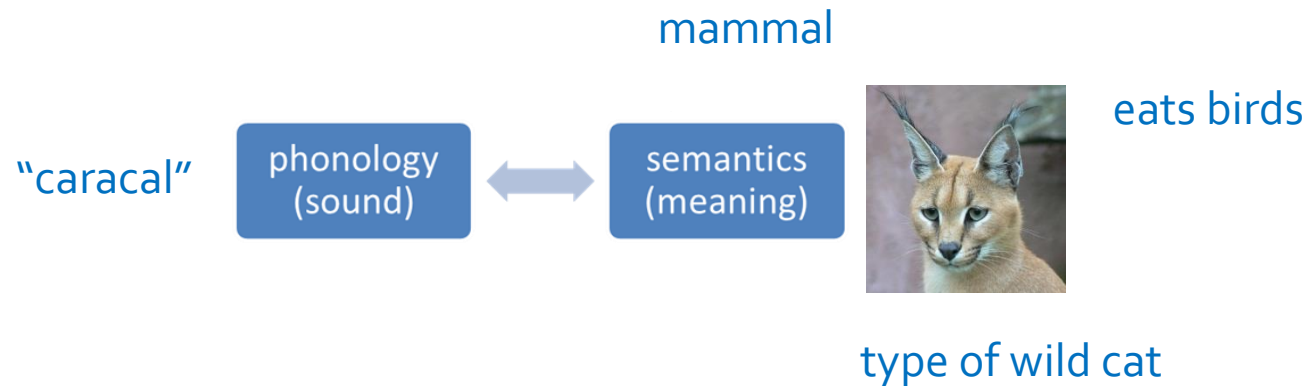
<https://oracyeducationcommission.co.uk/wp-content/uploads/2024/10/We-need-to-talk-2024.pdf>



What does it mean to know a word?



Lexical representations:
stored knowledge about words



- Aspects of word knowledge
- Different types of words
- Incremental
- Breadth vs. depth
- Different senses, contexts

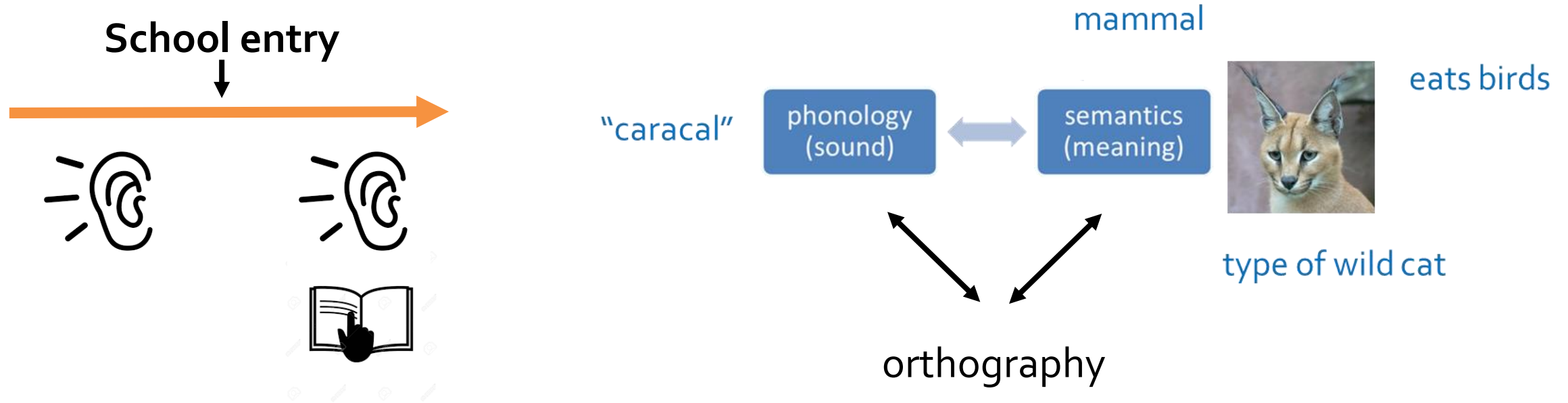
Types of vocabulary

The book *Bringing Words to Life*, Beck et al. classifies types of vocabulary into three tiers:

- **Tier 1** vocabulary includes words that are generically useful in a variety of everyday situations, such as ‘cat’, ‘read’ or ‘good’.
- **Tier 2** vocabulary includes words that are more academic in nature, but non-subject-specific, such as ‘compare’, ‘analyse’ or ‘conclusion’.
- **Tier 3** vocabulary is subject-specific, for example ‘iamb’, ‘allegro’ or ‘titration’.

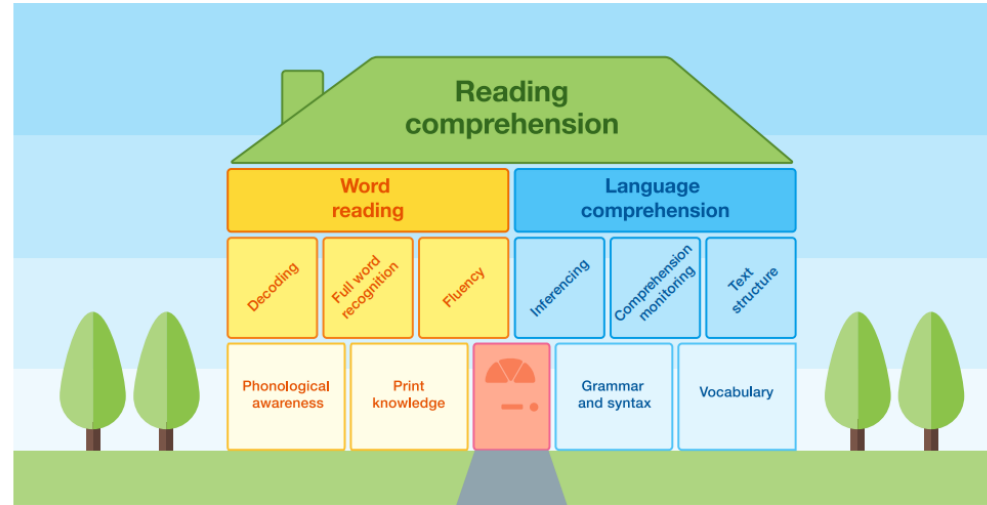
Oxford Language Report 2020

And once you can read...



This is the knowledge base that we use to: listen, speak, read, write

Adapted from Hogan, Bridges, Justice, and Cain (2011)



Vocabulary is important for reading, but...

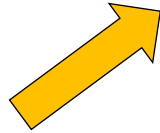
How can we harness reading for vocabulary learning?

Direct, indirect, both?

Both! Our work:
Van der Kleij et al. (2022)

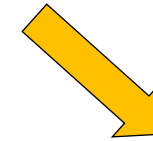


More proficient readers
read more books (e.g. van
Bergen et al., 2018)



Which enhances vocabulary

...and syntax,
background knowledge...
(Torppa et al., 2019)



More able readers are better at learning new words



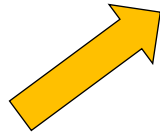
frees resources for comprehension (Perfetti et al., 2005)

quality of existing lexical representations determines integration (James et al., 2017; Mak & Twitchell, 2020)

Indirect

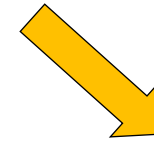


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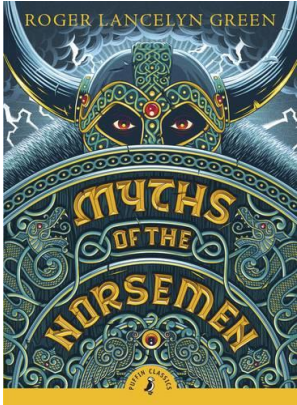
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Reading for learning



the Vanir, and by the arts which the wisdom of Mimir had already taught him, he made of it a man called Kvasir. This man came into being fully grown, remembering no childhood: but instead he was filled with all the knowledge both of the Vanir and the Æsir.

In Asgard he was loved for his goodness; but in Midgard he was adored by all men for bringing peace among them, teaching them manners and showing them many of the arts and crafts which made their lives better and happier. Anyone who was in trouble, or in need of advice, had only to send for Kvasir, and he would go wherever he was needed.

Learning: phonology, semantic, orthography and links between

"caracal"

phonology
(sound)



semantics
(meaning)



eats birds

type of wild cat

orthography

Can we increase reading amount?



Behavioural change approach: goal setting, diary, text messages
Hmmm... challenging
Need to listen to young people

OXFORD
UNIVERSITY PRESS



Stage 1: Pre-test

- Test knowledge of book-specific vocabulary items

Stage 2: Practice diary and drop-in session

- 4-day SMS diary

Stage 3: Reading phase

- Students given access to 4 books over 10 weeks
- Experimental group complete reading diary and set goals

Stage 4: Post-test

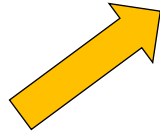
- Test knowledge of book-specific vocabulary items after the 10 week period
- 4-day reading diary to capture increases in reading

Our work:
Van der Kleij et al. (coming soon!)

Direct?

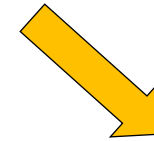


More proficient readers
read more books (e.g. van
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Which enhances vocabulary

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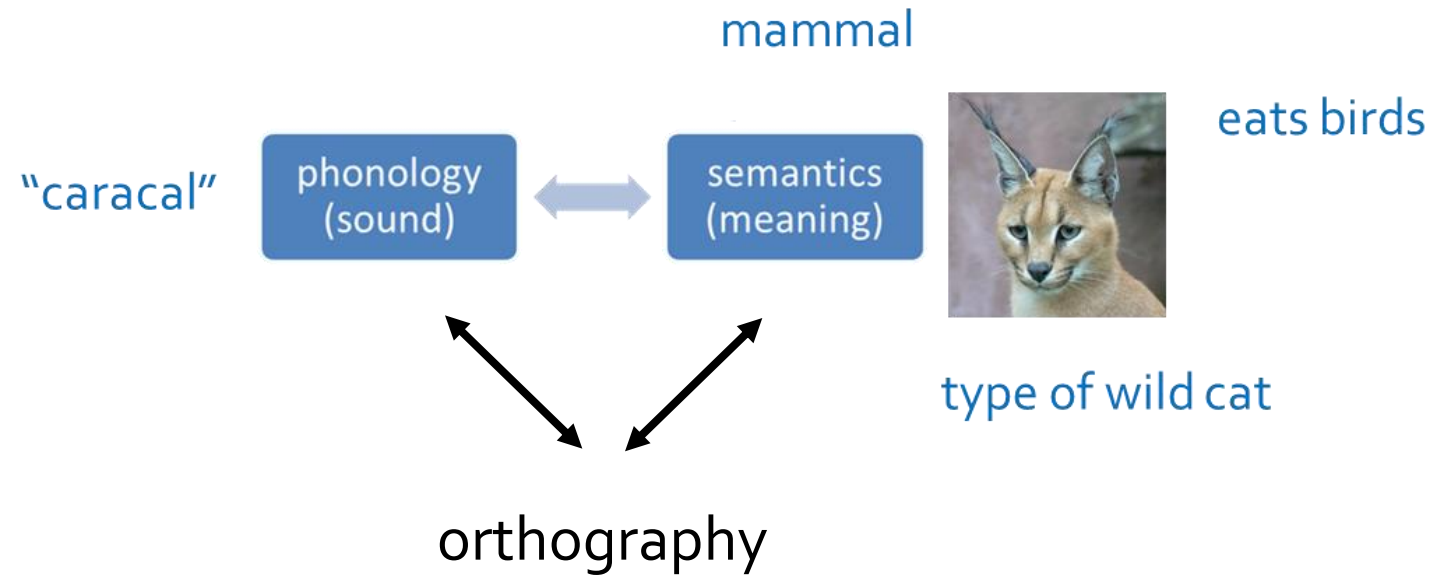
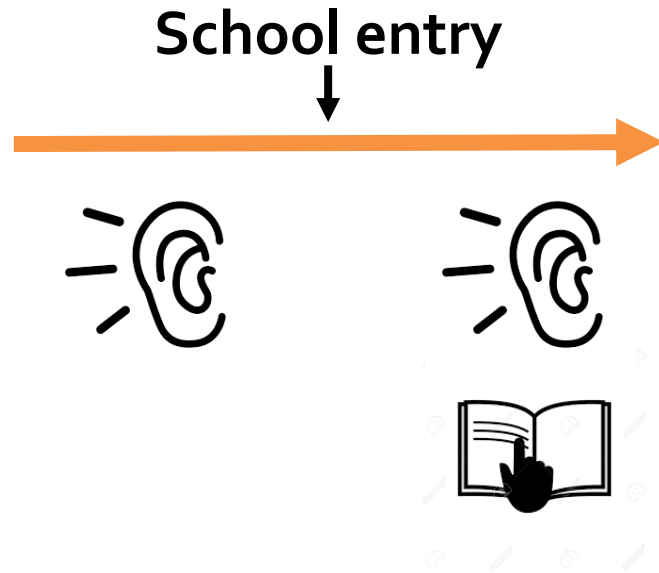
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A different approach

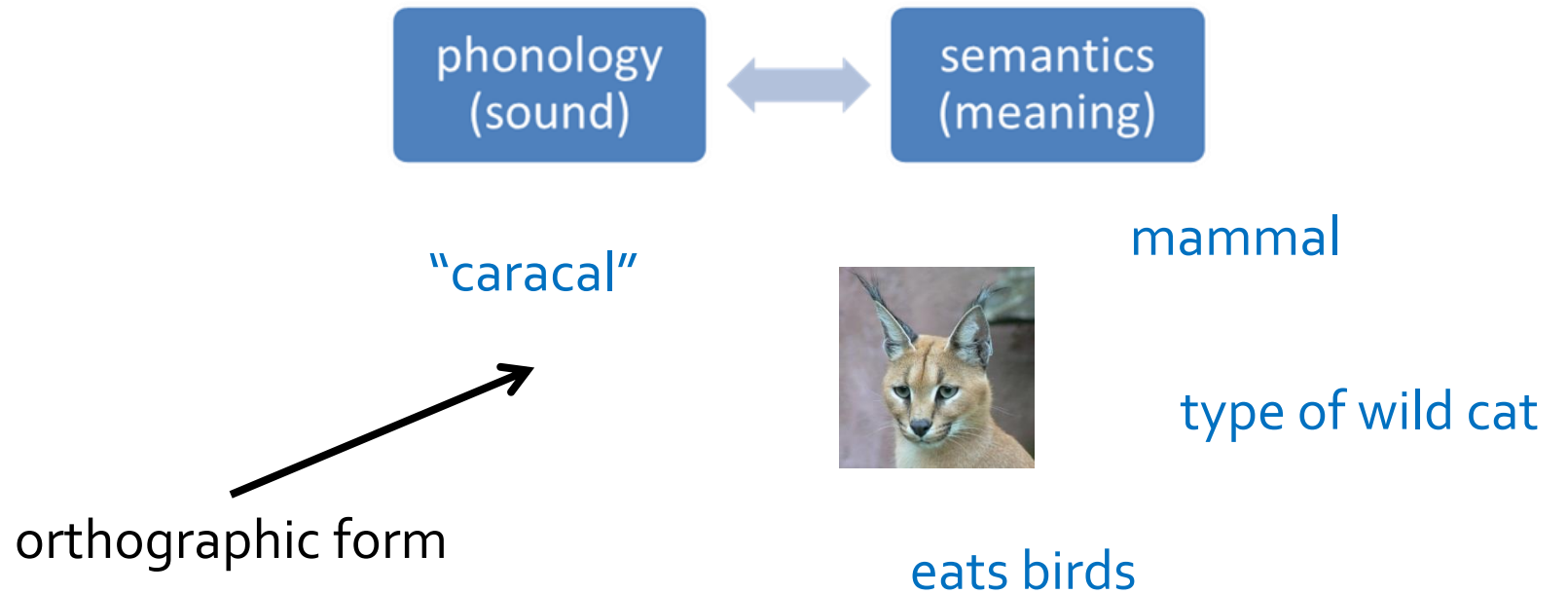


Orthographic learning: reading builds orthographic knowledge... can we harness this?

Orthographic facilitation



- Does the presence of orthography facilitate oral vocabulary acquisition?
 - i.e. learning of phonology, semantics, and links between phonology and semantics



Feasible and acceptable



- Practically... emphasising orthography while teaching new words is a well-known and easily employed strategy, BUT
 - New words not systematically written on the board or emphasised by current intervention approaches (e.g., Beck et al., 2002)

Effective?



- Well, there is a theoretical motivation...
- Orthography of a word can aid memory for/processing of its phonological form (Demoulin & Kolinsky, 2016; Kolinsky, 2015)
- Offline restructuring or online support (Ziegler et al., 2003)?
- Orthographic inputs are less transient across time are less variable across individuals and contexts (Ricketts et al., 2009; Rosenthal & Ehri, 2008)
- Lexical quality hypothesis (Perfetti & Hart, 2002): A lexical representation with phonology, semantics and orthography will be of higher quality than one with phonology and semantics only
- Dual coding theory (Sadoski, 2005): Visual plus verbal presentation promotes word learning

Evidence? Yes

age group

9-10 year olds

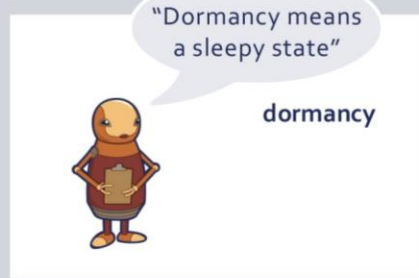


12-13 year olds

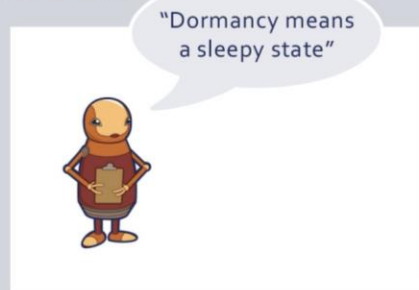


orthography

present



absent

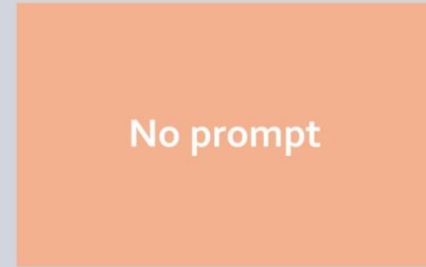


presentation

explicit



incidental



Our work:

Ricketts et al. (2021)

Also, Ricketts et al. (2009; 2015)

So...



Reading and vocabulary inextricably linked

Other aspects of language also important for reading

Acknowledgements



- Thank you for listening!
- All schools, participants and families
- Nicky Dawson, Charles Hulme, Arne Lervag
- Laura Shapiro, Sanne van der Kleij, Adrian Burgess
- Kate Nation, Dorothy Bishop
- Right to succeed, Blackpool secondary literacy leads
- Many many research assistants!

<https://bit.ly/AstonLiteracyProjectTeam>

<https://lara.psychologyresearch.co.uk>

