



The Vocabulary and Reading in Secondary School (VaRiSS) project: Attainment at 16

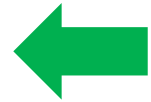
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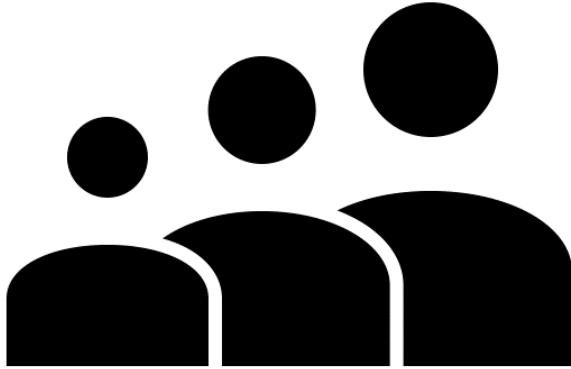


ROYAL
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Plan for today

1. Reading and vocabulary development in adolescence
2. Educational attainment at 16 years (preliminary)





- Adequate reading is crucial for accessing the curriculum
 - Expectations of independence: focus on 'reading to learn'
 - Poor reading will be a barrier to exam performance
-
- We know very little about reading in adolescence, (some hints: Foorman et al., 2015; Reynolds & Turek, 2012)

Much is changing in adolescence

- Brain (Ben-Shachar et al., 2011)
- Processing (Dawson et al., 2017)

Reading in secondary: Is there an issue?

- 20% of adolescents exhibit reading that is below acceptable standards (PISA 2015; Jerrim & Shure, 2016)
- PISA 2009 items...

Macondo 100 years of Solitude: Gabriel Garcia Márquez

Dazzled by so many and such marvellous inventions, the people of Macondo did not know where their amazement began. They stayed up all night looking at the pale electric bulbs fed by the plant that Aureliano Triste had brought back when the train made its second trip, and it took time and effort for them to grow accustomed to its obsessive toom-toom. They became indignant over the living images that the prosperous merchant Don Bruno Crespi projected in the theatre with the lion-head ticket windows, for a character who had died and was buried in one film, and for whose misfortune tears of affliction had been shed, would reappear alive and transformed into an Arab in the next one. The audience, who paid two centavos apiece to share the difficulties of the actors, would not tolerate that outlandish fraud and they broke up the seats. The mayor, at the urging of Don Bruno Crespi, explained by means of a proclamation that the cinema was a machine of illusions that did not merit the emotional outburst of the audience. With that discouraging explanation many felt that they had been the victims of some new and showy gypsy business and they decided not to return to the movies, considering that they already had too many troubles of their own to weep over the acted-out misfortunes of imaginary beings.

Supermarket Notice

Peanut Allergy Alert Lemon Cream Biscuits

Date of alert: 04 February

Manufacturer's Name: Fine Foods Ltd

Product Information: 125g Lemon Cream Biscuits (Best before 18 June and Best before 01 July)

Details: Some biscuits in these batches may contain pieces of peanut, which are not included in the ingredient list. People with an allergy to peanuts should not eat these biscuits.

Consumer action: If you have bought these biscuits you may return the product to the place of purchase for a full refund.

Or call 1800 034 241 for further information.

Simple multiple choice
questions

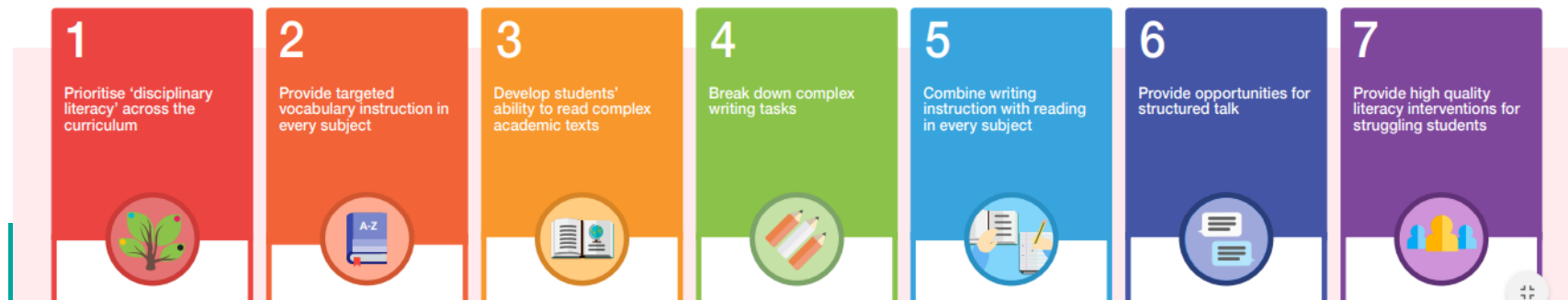
- Education Endowment Foundation (EEF) guidance reports
 - Early years
 - Key Stage 1
 - Key Stage 2
 - **Secondary (brand new, published today!)**

<https://educationendowmentfoundation.org.uk/tools/guidance-reports/>

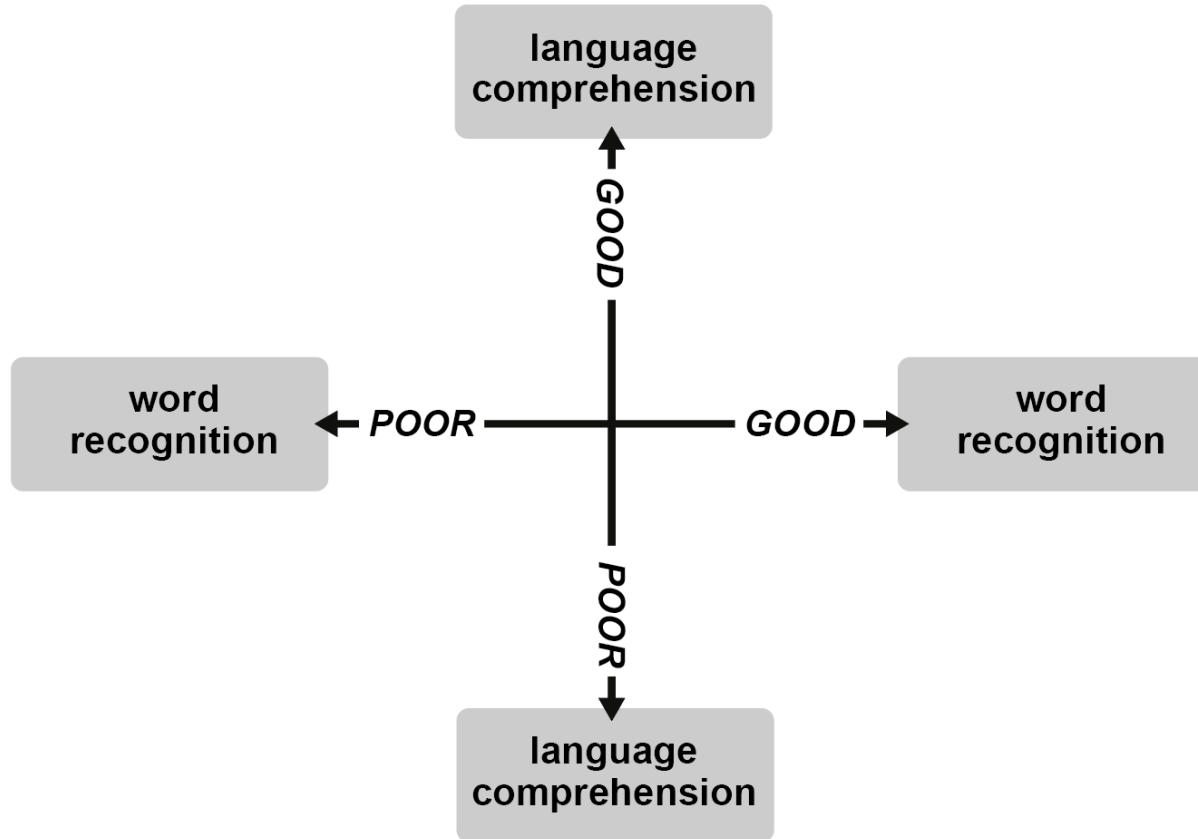


IMPROVING LITERACY IN SECONDARY SCHOOLS

Summary of recommendations

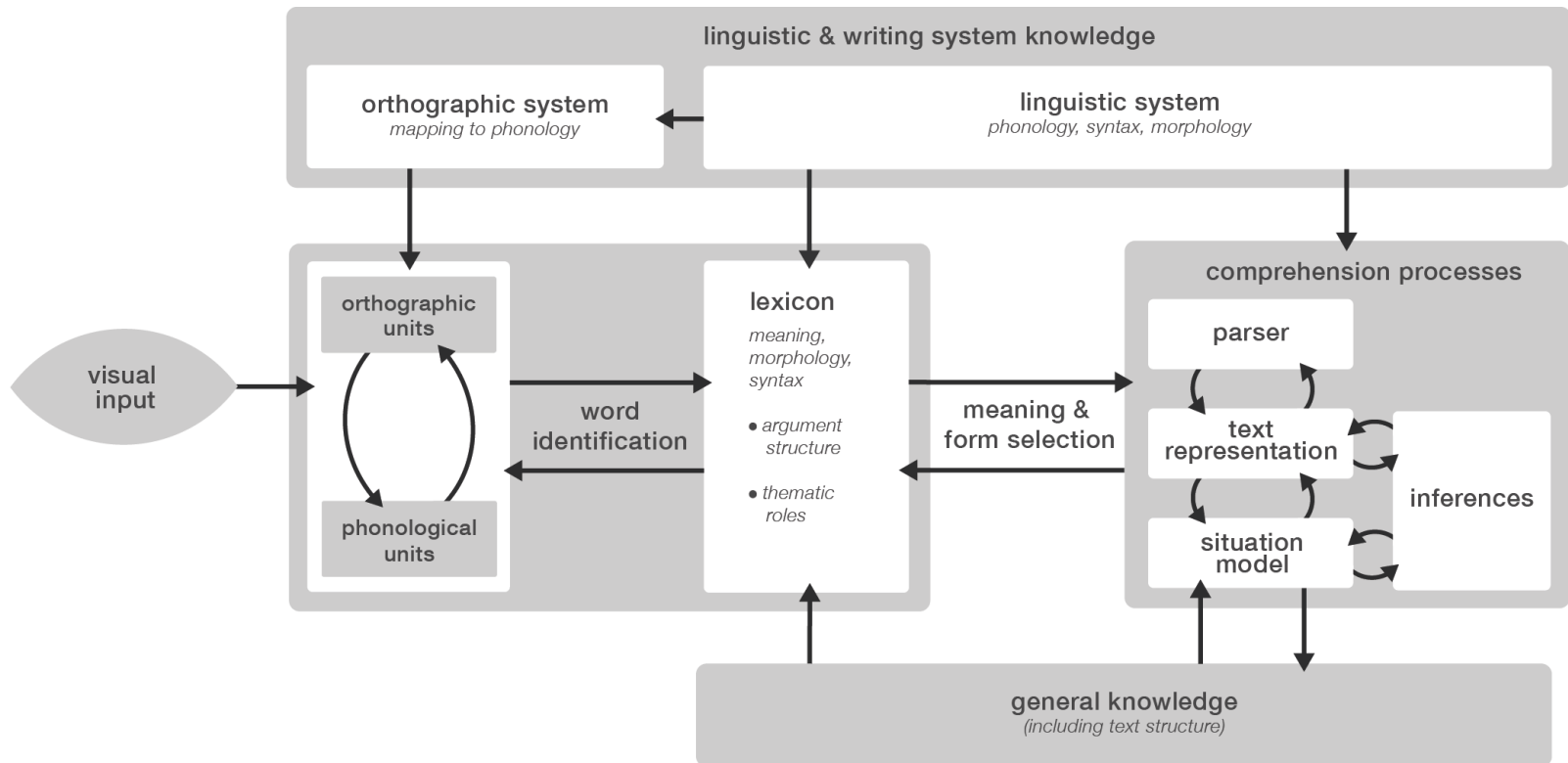


What underpins reading success?



Simple View of Reading (Gough & Tunmer, 1986)

What underpins reading success?



- Vocabulary knowledge is particularly important



- Vocabulary (and spoken language more broadly) and foundational reading skills increasingly downplayed in curriculum from upper primary (KS2)

The VaRiSS project

Phase 1	Phase 2	Phase 3
12.01 yrs (.33)	13.07 yrs (.34)	14.01 yrs (.33)
$N = 208$	$N = 195$	$N = 186$
48.6% girls	49.7% girls	48.4%

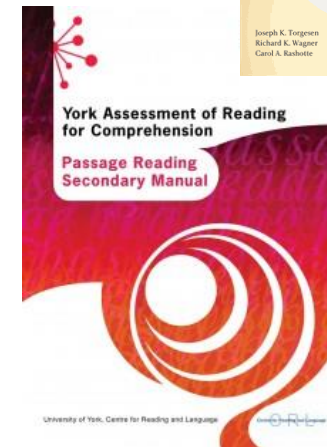
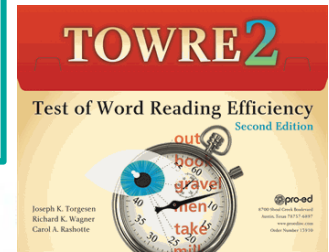
New in: GCSEs
16 yrs
 $N = 93, 46.24\%$ girls

Measures:

- Oral vocabulary
- Word reading
- Reading comprehension



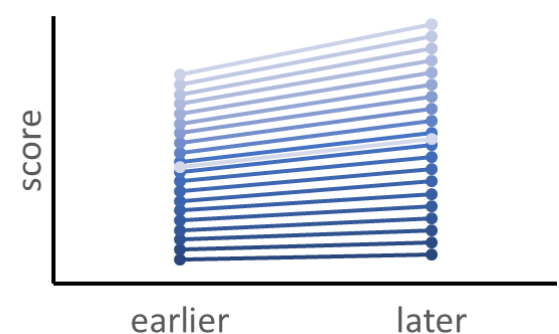
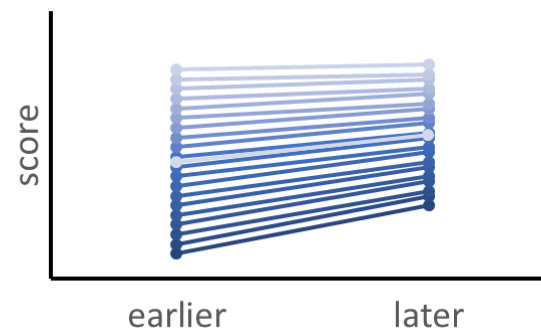
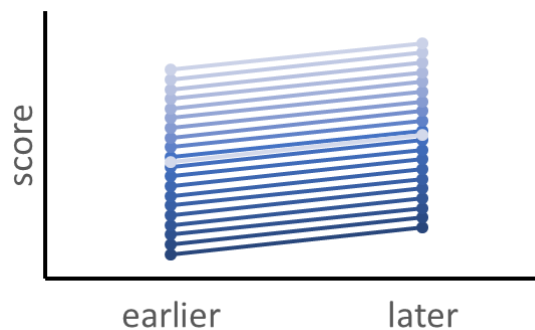
pump, chicken
cough, cello
delk, seldent



what does summer mean?

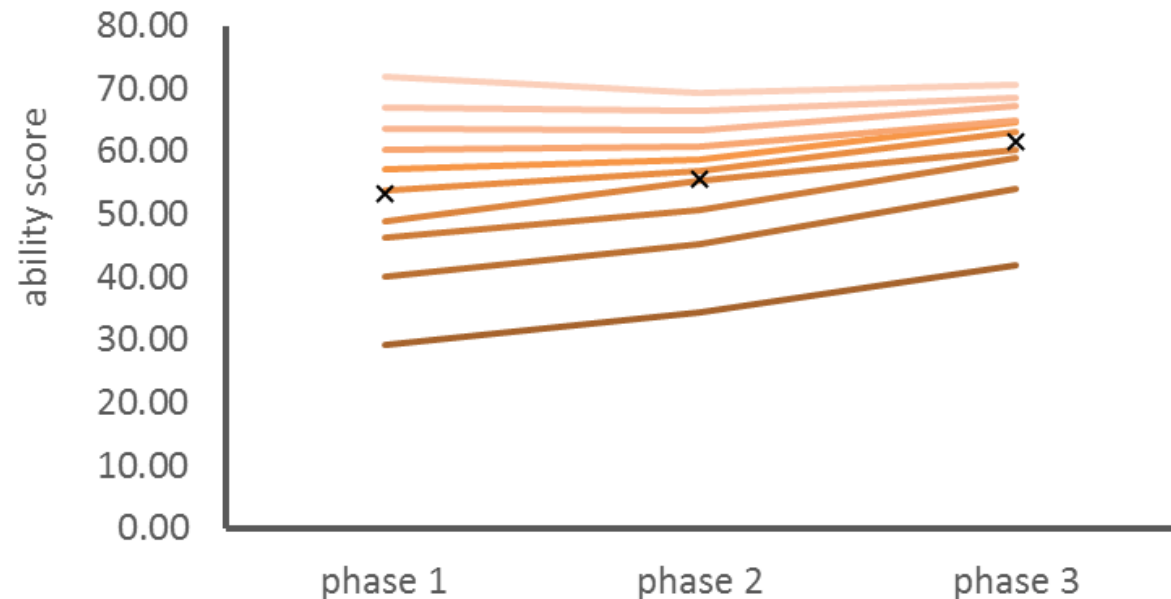
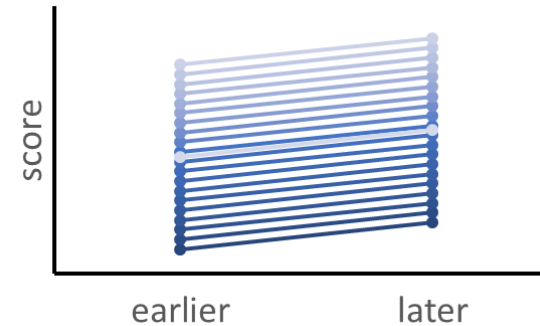
Development: three separable processes

- First longitudinal study tracking progress within adolescence
- Growth: Is there progress over time?
- Stability (Bornstein et al., 2014; 2016): Does pecking order stay the same over time?
- Spread: Is there evidence for Compensation? Matthew effects (Pfof et al., 2014; Stanovich, 1986)?

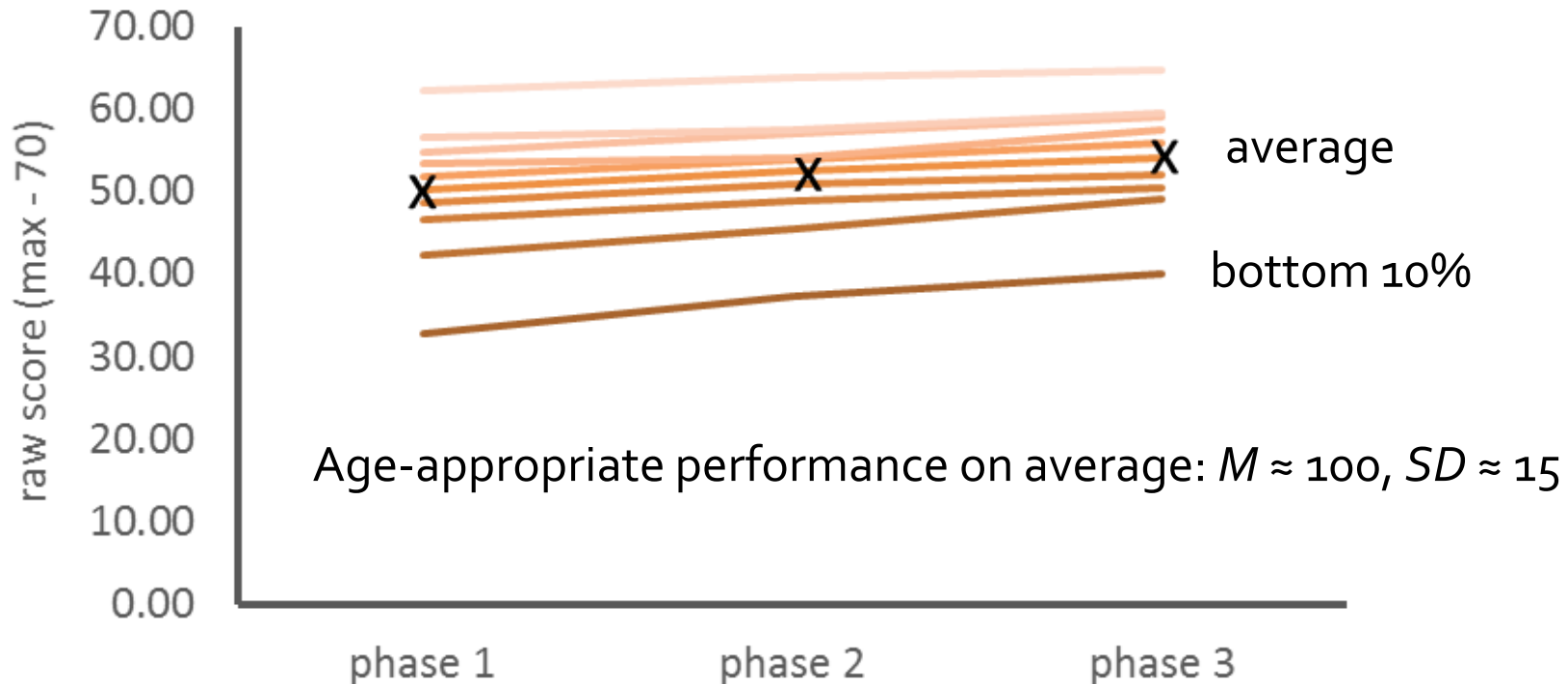


Visualising development

- Individual trajectories too messy
- 10% bins i.e. mean for $\sim n = 20$
- Based on phase 1 data
 1. top 10%
 2. next 10%
 3. and so on...

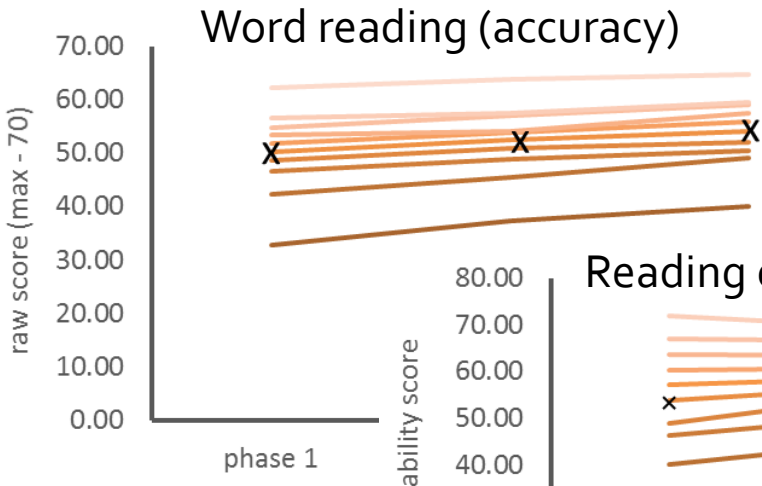


Word reading (accuracy)

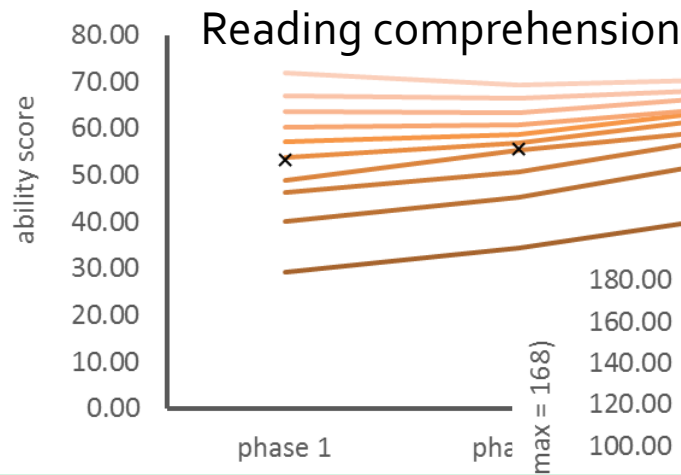


- Significant growth (small but functionally relevant?)
- Very high stability
- Gap narrows
- Same pattern for reading comprehension and vocabulary

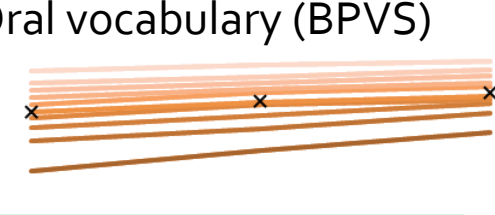
Development and change



- Growth: YES
- Stability: YES
- Spread: narrowing (but not closing) gap



Oral vocabulary (BPVS)



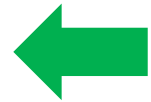
- Poorest performing 10-20%:

- not exceeding levels of the average 9 year old (but 12 – 14 years)
- can't assume they can access the curriculum, will constrain outcomes

- Poorest performing 10-20%:
 - not exceeding levels of the average 9 year old (but 12 – 14 years)
 - can't assume they can access the curriculum, will constrain outcomes
- Significant growth (but commensurate with test norms)
 - small in real terms but may be functionally important
 - clearly learning new information (e.g. subject-specific vocab)
- High stability: rank order also preserved
- Evidence of compensation: narrowing of gaps (but not closing)
- Vocabulary and reading comprehension inextricably linked

Plan for today

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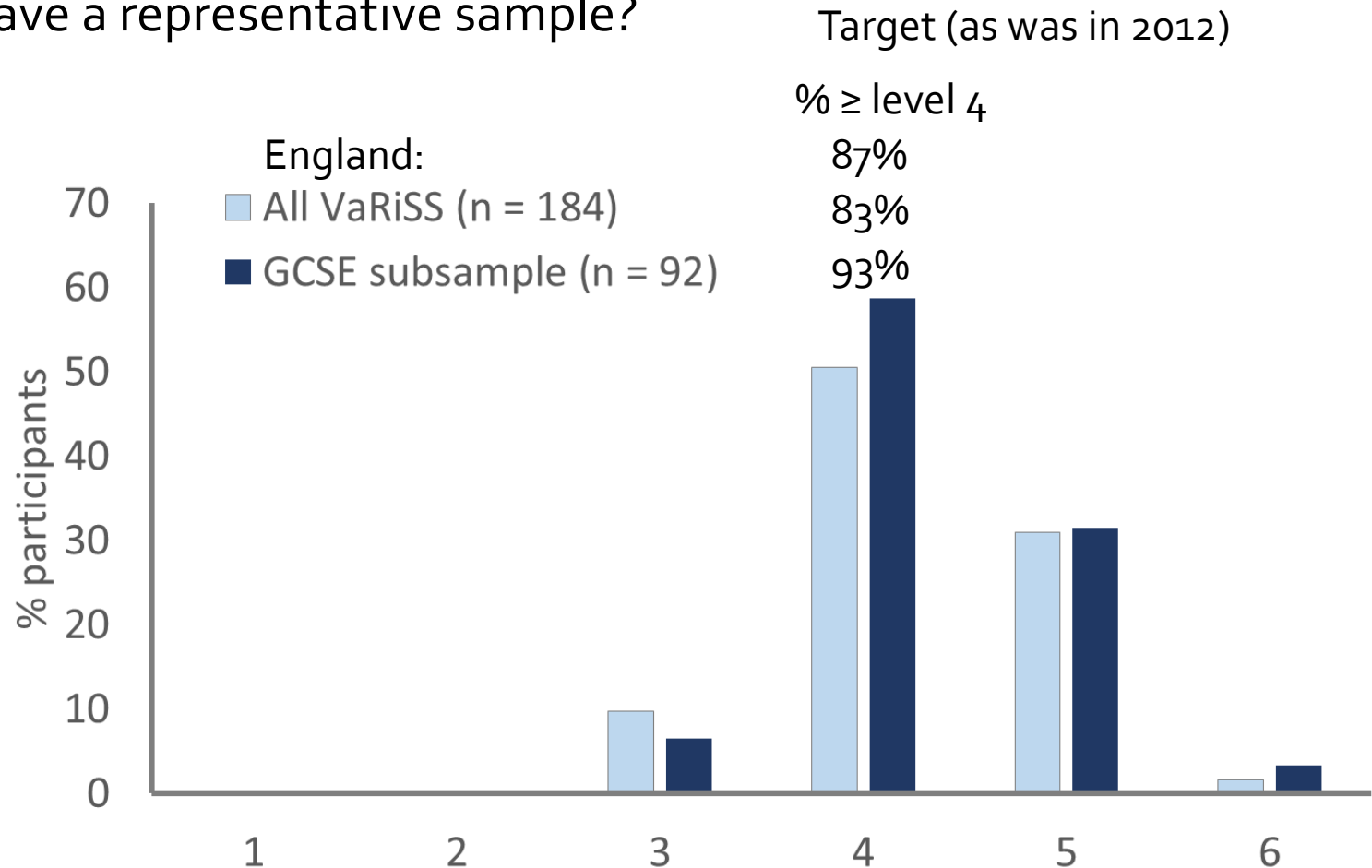


Educational data... preliminary findings

- KS2 SATs: before VaRiSS, age 11 (end of primary)
- GCSEs: all subject choices, all grades
- Also, teacher assessments from Year 9

KS2 SATs reading (Year 6, before VaRiSS)

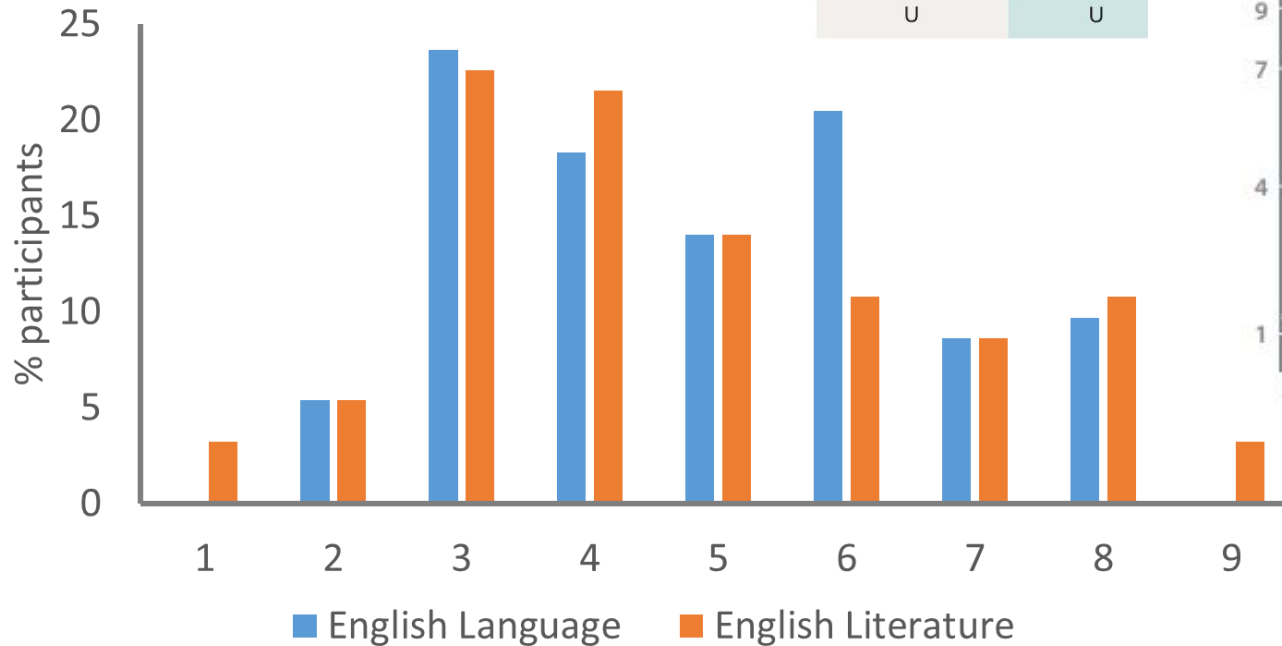
- Do we have a representative sample?



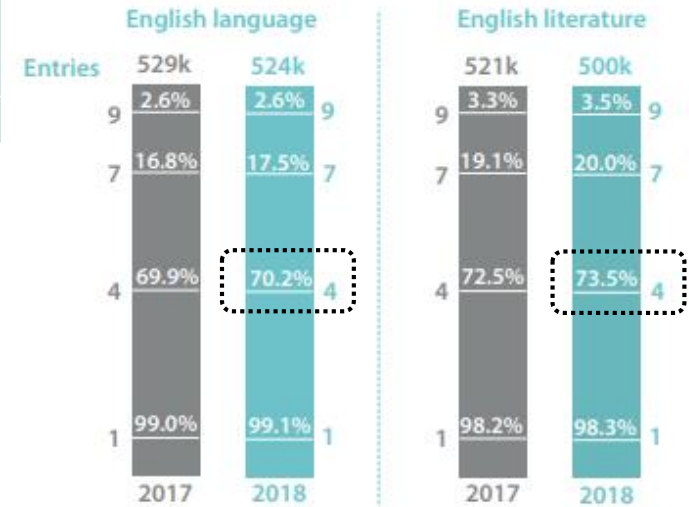
New GCSEs

Old grades	New grades
A*	9
A	8
B	7
C	6 5 STRONG PASS 4 STANDARD PASS
D	3
E	2
F	1
G	1
U	U

- Focus on English
- Have all grades (maths?)



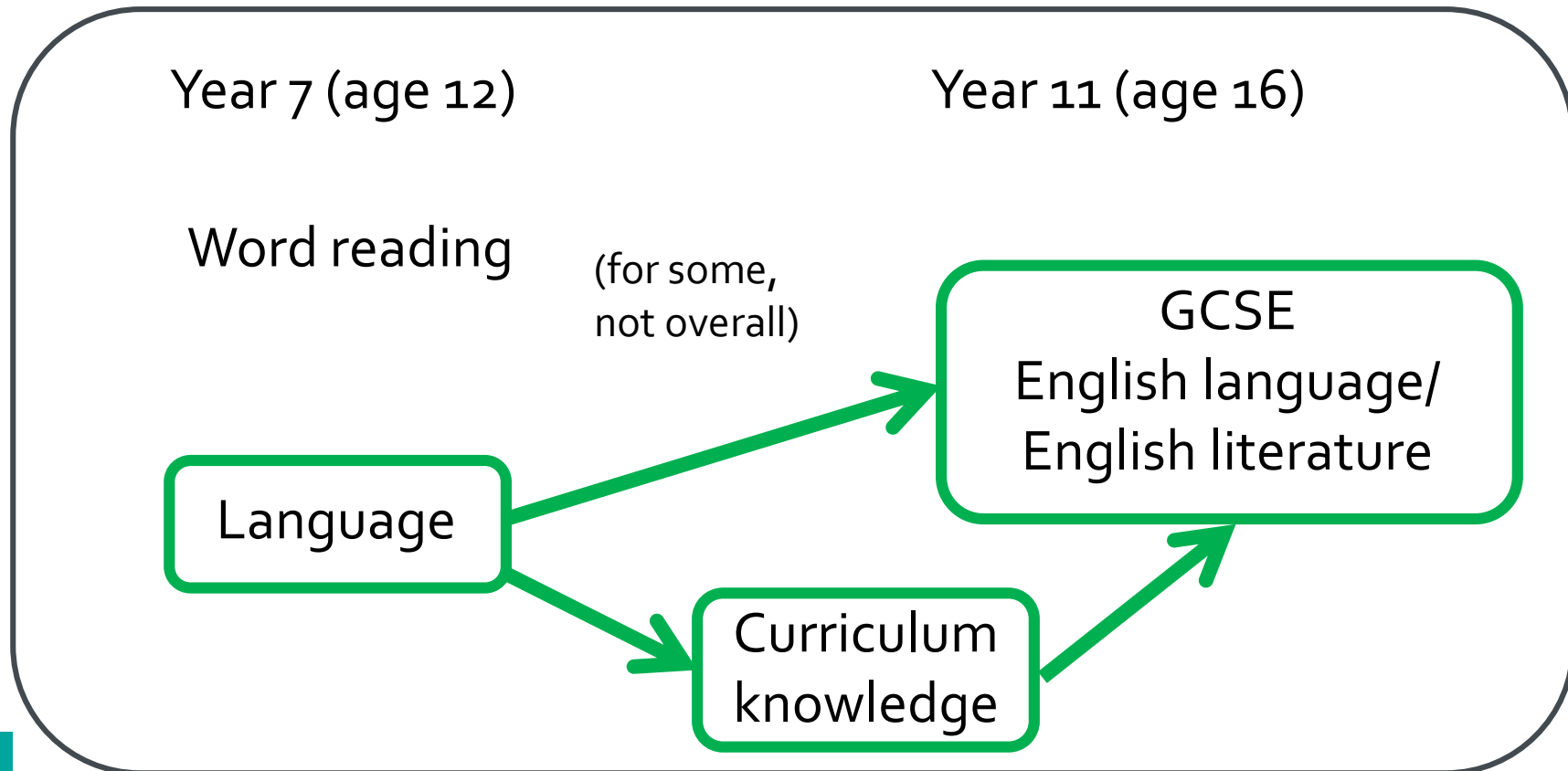
Results for 16-year-olds in English



71% / 69%

Does reading and vocabulary at 12 predict GCSE English grades? Preliminary findings...

- Word reading
- Language (reading comprehension, vocabulary)



- Language abilities at age 12, as indexed by vocabulary and reading comprehension, are a strong predictor of individual differences in educational outcomes at age 16
 - Word reading may still be a predictor for some
- Thus, while knowledge of the curriculum is crucial for academic attainment, success may also be driven by foundational language and reading abilities.
- More analyses to come e.g., maths

Take home message

- Foundational language and literacy matters in secondary school
- There is some growth, though with more input it might be greater
- GCSEs:
 - Content knowledge is important, but
 - Foundational language and literacy abilities are important too

Thanks and acknowledgements

- To you for listening!
- Pupils, teachers and schools:
- Collaborators:
 - VaRiSS: Nicky Dawson, Charles Hulme, Arne Lervåg
 - Lianne Farrer and research assistants at Royal Holloway, University of London



- LARA lab: <http://pc.rhul.ac.uk/sites/lara/>; @ricketts_lara
- VaRiSS project: www.variss.org; @varissproject; www.facebook.co.uk/varissproject