

Maria Korochkina

## **Assessing text experience in British primary school children: New validated Title and Author Recognition Tests**

FRiLL, 15 December 2025



Economic  
and Social  
Research Council



# Text experience & reading outcomes

- Variation in text experience **begins prior to literacy onset**
  - Shared reading predicts ~12% of variation in preschoolers' *oral language* & ~8% of differences in *language and reading performance*
- This relationship also **applies to independent reading**
  - Moderate to strong correlations between text experience and reading skills up to age of 21
- This relationship is **reciprocal**
  - The Matthew Effect

# Title and author recognition tests

- Frequent readers will have encountered more books and authors, and thus will recognise more items
- **Objective** measures of text experience
- **Sensitive to time & place** so require **frequent updating**
- No test adequately captures the reading experience of British children **today**



Design & validate new ART and TRT tests for  
British primary school children

# Test development & validation approach

## STAGE 1

Cohort 1 + large pool of items



Item validation



Keep items that...

- **vary** in difficulty
- **discriminate** between pupils with different text experience
- measure the **same construct**

## STAGE 2

Cohort 2 + Item from Stage 1



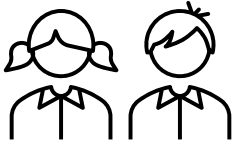
Test reliability



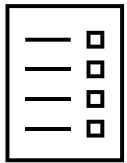
Examine relationship between TRT & ART performance and...

- **reading** skills
- **spelling** skills
- **age**

# Stage 1: Testing



- **123 Key Stage 2 pupils**
  - Ages 7–12;  $M = 9$  yrs,  $SD = 1.18$  yrs



- **100 titles / authors in each of TRT and ART**
  - Taken from CYP-LEX & Renaissance reports 2021–2023
  - Titles adapted for TV / film excluded
- **30 foils in each of TRT and ART**
  - Previous tests, random pairings of first & last names, changing one word in an existing title
- Foil selection: 1–2%

# Stage 1: Item validation

*Items vary in difficulty*

Mean Item Recognition Rate	Item-Rest Correlation
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**Item Response Theory**

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Item Response Theory	
Item difficulty	Item discrimination

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*Items measure the same construct*

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Item Response Theory	
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Test reliability (internal consistency)	
Cronbach's alpha	McDonald's omega

# Stage 1: Item validation

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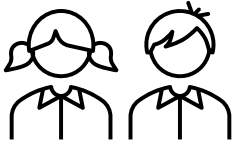
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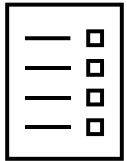
TRT: 50 items + 30 foils (80 in total)

ART: 47 items + 30 foils (77 in total)

# Stage 2: Testing



- **130 Key Stage 2 pupils**
  - Ages 7–11;  $M = 9$  yrs,  $SD = 1.14$  yrs



- **TRT and ART from Stage 1**
- **Single Word Reading: ROAR-LDT**
  - 42 words & 42 nonwords
- **Sentence Reading Efficiency: ROAR-Sentence**
  - True or False?
    - *"You can read stories in school"*
    - *"An apple is blue"*
  - 3min to complete (130 sent-s max)

Adapted for UK



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- **TRT and ART from Stage 1**
- **Single Word Reading: ROAR-LDT**
- **Sentence Reading Efficiency: ROAR-Sentence**
- **Spelling test**
  - 20 items from Spelling Frame



['səʊl.dʒər]

"Tim's great grandfather was a  
*soldier* in the second world war"

['səʊl.dʒər]

*soldier*

*soldjer*

*soldger*

*solger*

## Stage 2: Test reliability

### Test reliability (internal consistency)

Cronbach's alpha

McDonald's omega



> 0.87 for TRT & ART  
> 0.83 for ROAR-LDT  
0.96 for ROAR-Sentence  
> 0.74 for Spelling

## Stage 2: Relationships between tasks

		TRT	ART	ROAR-LDT		ROAR-Sentence
				Accuracy	RT	
ART		.79				
ROAR-LDT	Accuracy	.30	.45			
	RT	-.17	-.29			
ROAR-Sentence		.47	.58	.72	-.45	
Spelling		.32	.49	.64	-.39	.62

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*Children who recognised more titles were more accurate at recognising words and nonwords, more efficient at reading sentences, and better spellers*

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*Children who recognised more authors were more accurate and faster at recognising words and nonwords, more efficient at reading sentences, and better spellers*

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*Those who recognised more authors also recognised more titles*

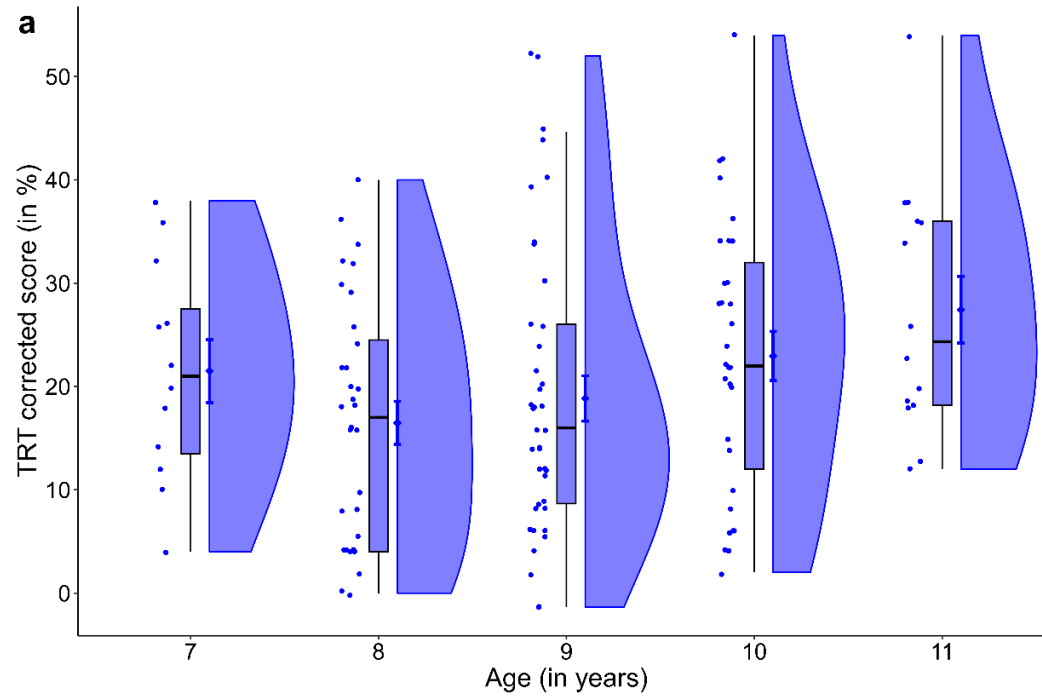
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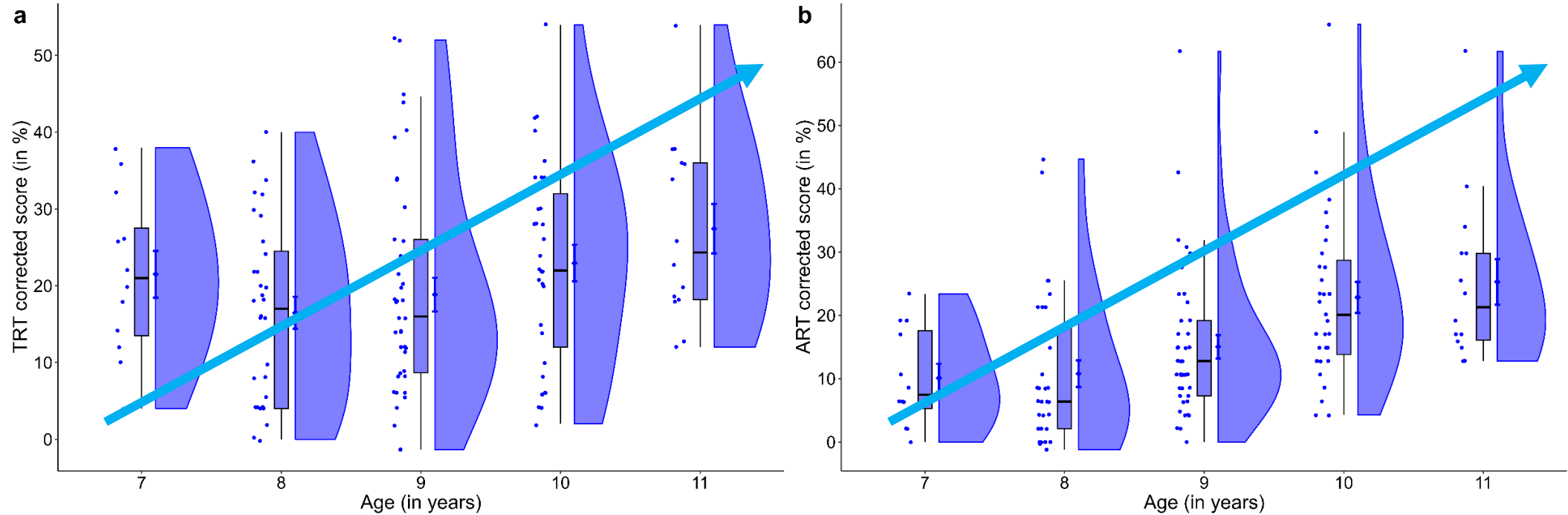
*Better spellers knew more authors & titles, recognised words and nonwords more accurately and faster, and were more efficient sentence readers*



## Stage 2: Relationship with age

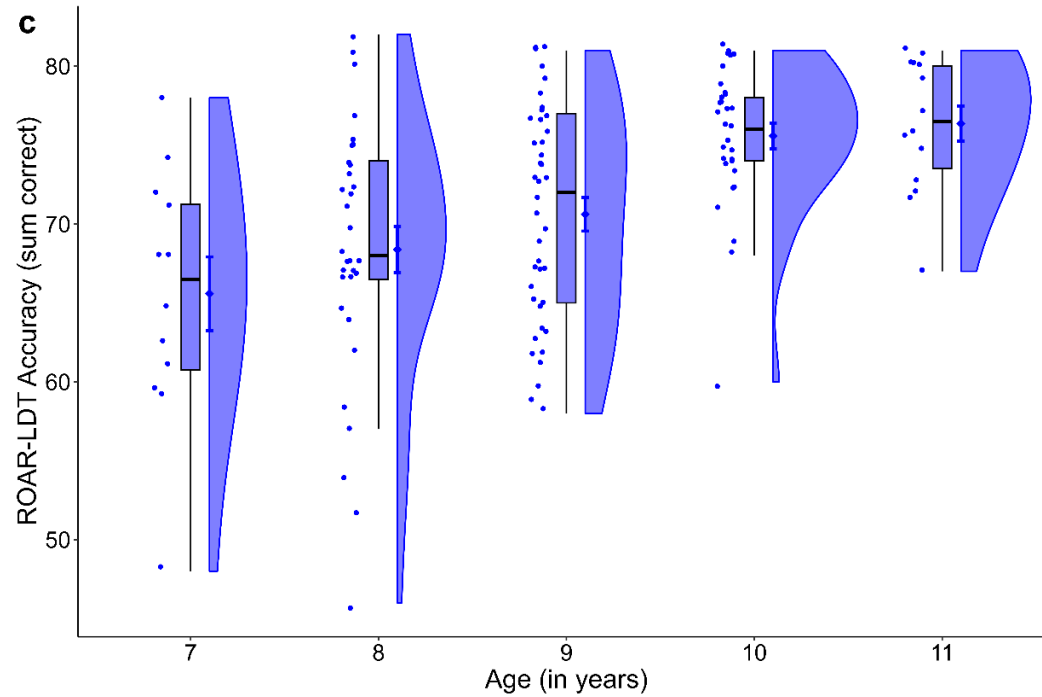


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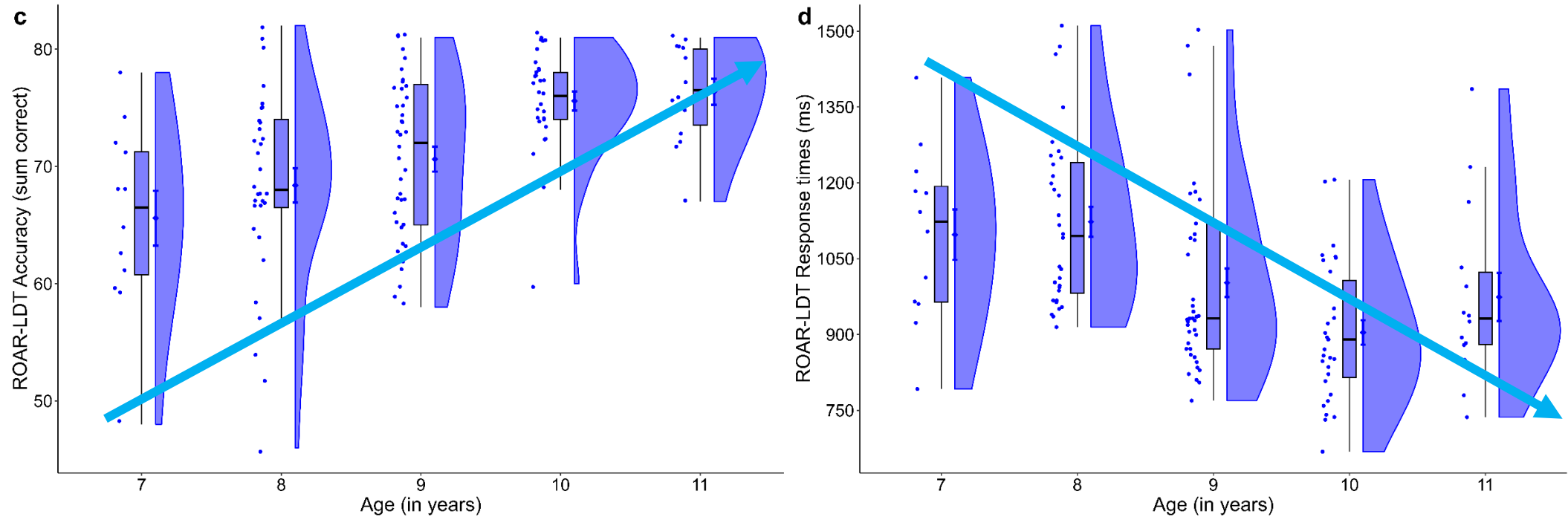


*Older children performed better on both ART & TRT*

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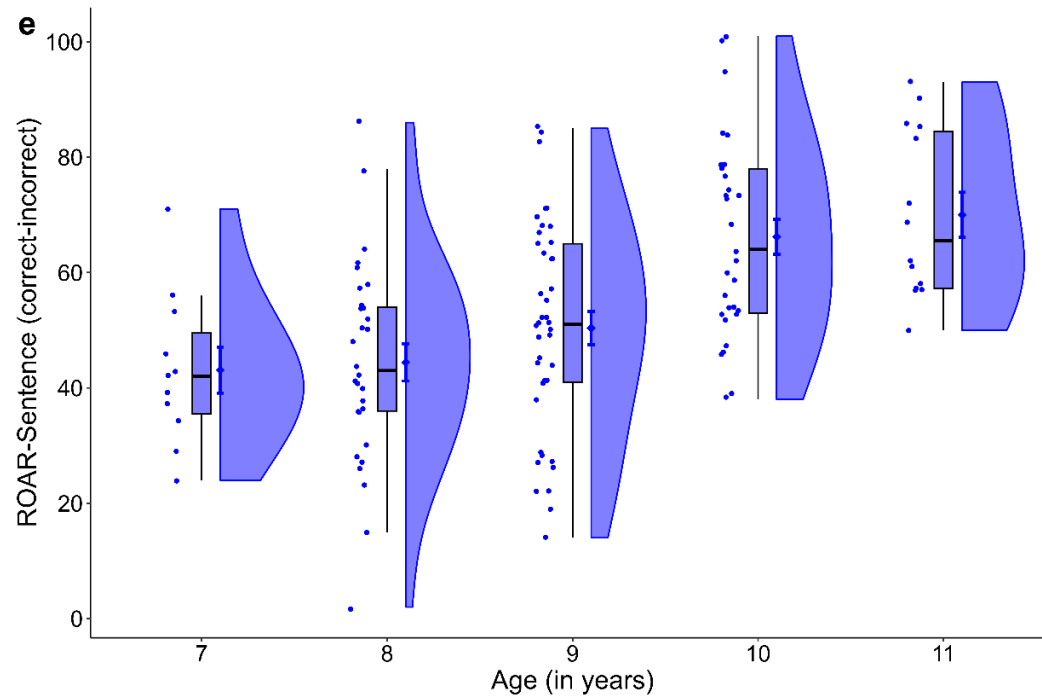


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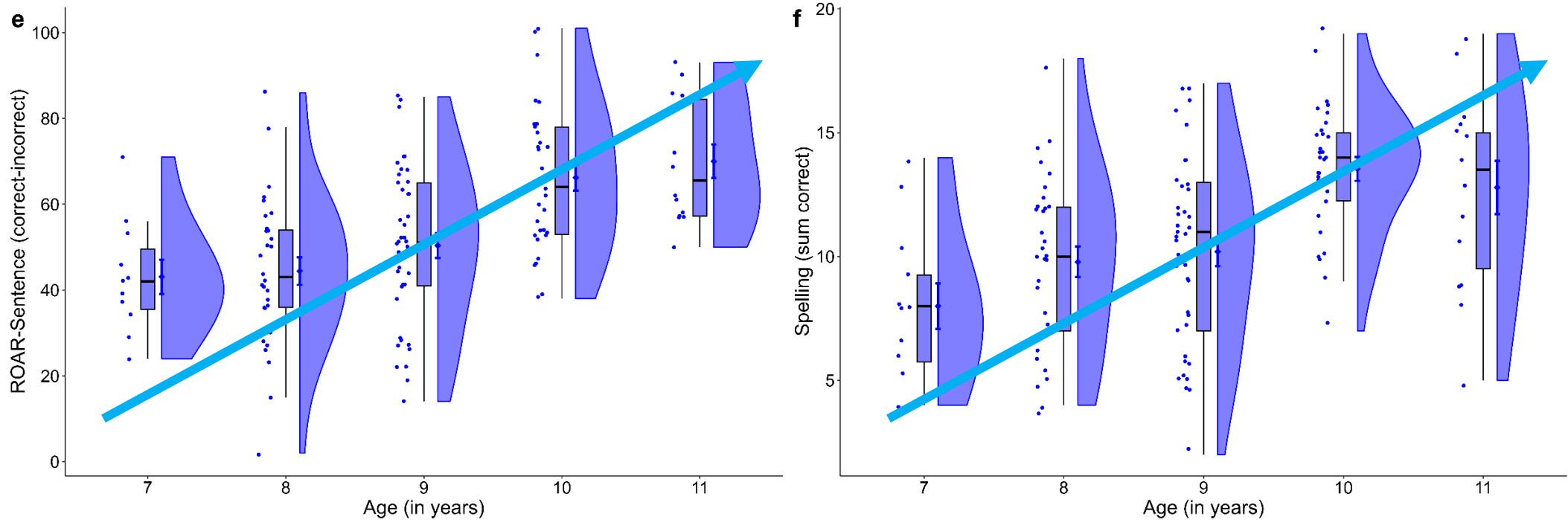


*Older children were more accurate and faster at recognising words and nonwords*

## Stage 2: Relationship with age



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*Older children were more efficient sentence readers and better spellers*

# Summary

130 pupils  
TRT: 50 items, 30 foils  
ART: 47 items, 30 foils



All tests showed high reliability



- ART/TRT performance correlated positively with reading and spelling skills
- ART showed stronger correlations with other tasks than did TRT
- Older children performed better on all tasks

# Conclusions

- **New validated TRT and ART tests for primary school children**
  - Discriminate readers at different points on the text experience spectrum
  - Internally consistent (each measures a single underlying construct)
- **ART may be a more sensitive measure of text experience**
  - Showed stronger association with reading & spelling ability
  - Due to current reading habits?
- **New easy-to-administer online spelling test**
- **ROAR tests adapted to the UK context**



# Pre-print & materials publicly available!

**Assessing text experience in British primary school children: New validated title and author recognition tests**

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**Pre-print at:** [https://doi.org/10.31234/osf.io/r2ybv\\_v2](https://doi.org/10.31234/osf.io/r2ybv_v2)

**Materials at:** <https://osf.io/gmv72>



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# Thank you!

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<https://mariakna.github.io/>



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