Aston Literacy Project: Update and Directions

http://www.aston.ac.uk/alp/

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We are working together with 16 primary schools in and around Birmingham to track the reading progress of pupils during primary school.

- Early primary: which basic cognitive skills are most strongly associated with early reading outcomes?

- Mid primary: examine profiles of reading (compare reading of different types of words)

- Late primary onwards: how do reading ability and reading practice influence vocabulary learning?
Aston Literacy Project
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Transition to secondary

<table>
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<tr>
<th>Grade</th>
<th>Year 1 (Jun 13)</th>
<th>Year 2 (Jun 14)</th>
<th>Year 3 (Jun 15)</th>
<th>Year 4 (Jun 16)</th>
<th>Year 5 (Jun 17)</th>
<th>Year 6 (Jun 18)</th>
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<td>n</td>
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Funding application to Nuffield Foundation through to final round…
Plan for session

- Update on findings so far:
  - Skills for early reading
  - Profiles of reading
  - First peek at vocabulary scores

- Ongoing work:
  - Help for poor readers: what is current practice? (Natalie’s PhD)
  - How does reading influence vocabulary learning?
Theoretical Background: The Simple View of Reading

Skills for Early Reading

- Foundation and Key Stage 1 pupils

- Sets of matched tasks comparing different reading-related skills:
  - Linguistic skills (musical notes vs. phonemes)
  - Segmentation skills (phonemes vs. whole words)
  - Verbal skills (pointing vs. saying)

- Reading outcomes:
  - Single (regular) words and nonwords
Skills for Early Reading

Cunningham, A.J., Witton, C., Talcott, J.B., Burgess, A.P., & Shapiro, L.R. (2015). Deconstructing phonological tasks: The contribution of stimulus and response type to the prediction of early decoding skills, *Cognition, 143*, pp. 178-186. [http://authors.elsevier.com/a/1RLGm2Hx2Q8kR](http://authors.elsevier.com/a/1RLGm2Hx2Q8kR)
Skills for Early Reading

- Predicting reading aptitude
  - children who are good at these skills usually become better readers/
  children who are poor at these skills most at risk

- Teaching phonological skills
  - Focus on activities that involve segmenting skills
  - Focus on activities that involve saying the words out loud (e.g., card-
    match games fine as long as child encouraged to say out loud)

Profiles of Reading

- Examine performance across different types of words
  - Different words vary in the demands they place on each underlying process
Try reading…

- Berizult
- Imbenzick
- Laridonnet

Examples taken from:
What can Nonword reading tell us?

- Nonwords can only be read using a phonic decoding strategy.
  
  - **Impact of synthetic phonics teaching should be clearest for nonword reading.**
  
  - Nonword reading relies heavily on phonological skills (e.g., Shapiro et al. 2013).
  
  - Nonword reading difficulties are associated with specific difficulties in phonological processing (classic “phonological dyslexia” profile; e.g., Talcott et al. 2013).


Try reading…

- Meringue
- Chaos

Or if those were too easy:
- Leicester
- Caius
- Torpenhow
- Milngavie

Examples taken from:
What can exception word reading tell us?

- Exception words can’t be read accurately using phonic decoding
  - Depend on “lexical-semantic” processes
    - Accessing word meaning and word pronunciation directly from the written form of a word
  - Impact of synthetic phonics less clear for exception word reading
- Exception word difficulties are less well understood (this is a key focus of Natalie’s PhD)
Profiles of Reading

- How do ALP pupils perform on these different types of words (compared to a “normative sample”, from before the introduction of phonics screener…)}
Standard scores: expected distribution

Average = 100
Profiles of Reading

- How do ALP pupils perform on these different types of words (compared to a “normative sample”, from before the introduction of phonics screener…)

  - Year 1 (reading accuracy)
    - Nonwords: 106, Exception words: 105
    - Only 1.8% had difficulties with nonwords, compared to 5% expected

  - Year 4 (reading accuracy)
    - Nonwords: 107, Exception words: 104
    - Only 1.4% had difficulties with nonwords
How do ALP pupils perform on these different types of words (compared to a “normative sample”, from before the introduction of phonics screener…)

- Year 5 (reading efficiency)
Year 5

**Phonemic Decoding Efficiency**

- **Average = 105**

**Sight Word Efficiency**

- **Average = 99**
Profiles of reading

- ALP pupils gained better scores than expected (in 2013, 2016, 2017 compared to a standardisation sample from 2012)

- ALP pupils were especially good at nonword reading
First Peek at Vocabulary…

- How do ALP pupils perform on a standardised test of General Vocabulary? (compared to a “normative sample”)
General Vocabulary at Year 5

Average = 89
ALP pupils gained better scores than expected (in 2013, 2016, 2017 compared to a standardisation sample from 2012)

ALP pupils were especially good at nonword reading

Overall, ALP pupils scored more poorly than expected on vocabulary

Vocabulary knowledge is influenced by many factors outside school. And the assessment we used measured general vocabulary, rather than vocabulary specific to the curriculum, so is less influenced by teaching.

Next step- we will examine how children’s reading ability, and the amount of reading they do, influences their vocabulary knowledge.
Ongoing work

- Help for poor readers:
  - What interventions are currently given to poor readers: interviews with teachers/teaching assistants

- How does reading influence vocabulary learning? Influences of reading ability and the amount of reading children do:
  - Follow up in Year 6
  - Follow up in early secondary
Thanks

- Pupils and Teachers from participating schools
  - http://www.aston.ac.uk/alp/

- Research Assistants from Aston University
  - http://www.aston.ac.uk/alp/

- Economic and Social Research Council