Multi-Contextual Vocabulary Teaching for Children with EAL

Claudine Bowyer-Crane
Collaborators

• Dr Silke Fricke – University of Sheffield
• Dr Blanca Schaefer – University of Sheffield
• Professor Charles Hulme – University of Oxford
• Professor Maggie Snowling – University of Oxford
Introduction

• Reading comprehension is underpinned by a broad range of language skills including vocabulary knowledge

• Children with specific reading comprehension difficulties
  • Weak vocabulary knowledge (Ricketts Nation & Bishop, 2007; Cain & Oakhill, 2006)
  • Poor at inferring words from context (Cain, Oakhill & Lemmon, 2004)
  • Poor at attaching semantic information to newly learnt labels (Nation, Snowling & Clarke, 2007)
  • Vocabulary problems evident in pre-readers (Nation, Cocksey, Taylor & Bishop, 2010)
Literacy skills in Children with EAL

- Similar profile to Poor Comprehenders i.e.
- Strong phonological skills (e.g. Kang, 2012; Marinova-Todd, Zhao, & Bernhardt, 2010; McBride-Chang & Kail, 2002)
- Strengths in word reading (e.g. Burgoyne et al., 2009; Babayigit, 2015)
Bowyer-Crane et al, 2016
## Role of Vocabulary

<table>
<thead>
<tr>
<th>Study</th>
<th>Receptive</th>
<th>Expressive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EAL</td>
<td>ML</td>
</tr>
<tr>
<td>Burgoyne et al, 2009</td>
<td>73.33 (12.90)</td>
<td>83.48 (11.41)</td>
</tr>
<tr>
<td>Burgoyne et al, 2013</td>
<td>80.44 (9.35)</td>
<td>92.25 (10.57)</td>
</tr>
<tr>
<td>Bowyer-Crane et al, 2016</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Babayigit, 2014</td>
<td>83.28 (16.36)</td>
<td>100.45 (14/15)</td>
</tr>
<tr>
<td>Babayigit, 2015</td>
<td>86.70 (15.54)</td>
<td>99.45 (12.46)</td>
</tr>
</tbody>
</table>
Longitudinal e.g.

Hutchinson et al, 2003
- Receptive and Expressive vocabulary
- Years 2, 3 and 4

Burgoynne et al, 2011
- Receptive and Expressive Vocabulary
- Years 3 and 4

Bowyer-Crane et al, 2016
- Expressive Vocabulary
- Reception and Year 1

All children improved but EAL children < ML children at all timepoints
Relationship between Vocabulary and Reading Comprehension in Children with EAL

Vocabulary Knowledge e.g.
- Hutchinson et al, 2003
- Burgoyne et al, 2011
- Babayigit, 2014

Reading Comprehension
What was that new word again???

What would have helped to learn/remember it???
Cues

• Say it –
• See it – pantagruelian
• Contextualise it –
  The feast was pantagruelian
• Show examples:

• Give a definition:
  Pantagruelian means enormous
Vocabulary Teaching: Multi-contextual

• Successful vocabulary learning is best achieved using a multi-contextual method in which children are encouraged to use the word in context rather than simply being given a definition (Beck et al. 2002)

  - Spontaneous Generation (e.g. with flashcards)
  - Reinforcement (with flashcards)
  - Verbalisation and Activity
  - Formal Definition
Vocabulary example: Thumb & Throw

- **Spontaneous Generation** (e.g. with flashcards)

- **Reinforcement** (with flashcards)

- **Verbalisation and Activity**

- **Formal Definition**

Reinforce correct responses and give the answer if no correct responses are given.
*Make sure all the children say the word.*

"You have a **thumb** on each hand. It is lower on your hand and separate from the other fingers. It helps you to hold things"

Use new vocabulary in other activities i.e. narrative work
Teaching Wrist and Ankle

New Vocabulary (6 mins)

Aim: To understand and use wrist/ankle

First show the children the flashcards and ask them if they know what the special words are and what they might mean. Reinforce correct guesses or provide correct word if necessary.

Show the cards one at a time and ask the children to repeat the word, it is important for all children to say the word to help them learn to say it accurately. While holding the card, tell them a bit about it, you could point to your wrist and say ‘This is my wrist, it is the part of my body between my arm and my hand’ ‘This is my ankle, it is the part of my body between my leg and my foot’

Activity – ‘Bracelets for wrist or ankle’ Give out a paper strip to each child; ask them to attach them around their wrist or their ankle. Go around the group and ask each child where their band is, if they cannot use the key words, give them choices ‘is it around your wrist or your ankle?’ and point to the body part as you say it. Reinforce correct uses of the words by repeating back to them such as ‘yes, I can see it around your wrist’ and re phrase incorrect uses and ask the child to repeat.

Definitions
At the end say “Well done, our special words for today are wrist and ankle.” Show the children the flashcards and give definitions for each word.

‘A wrist is the part of your body that allows your hand to move. It is between your arm and your hand. It is where you wear your watch.’

‘An ankle is the part of your body that allows your foot to move. It is between your leg and your foot.’

Vocabulary Reinforcement

Aim: To reinforce understanding and use of wrist/ankle from previous session

“Now let’s think about the special words we learned last time we met. Who can remember what these are called?” Show the children the flashcards of the previous session.

• Try not to prompt the children but if they struggle to find a word, try to help the child retrieve the word by describing the target word (i.e. semantic help) or telling the child the first sound of the target word (i.e. phonological help).
• If they still struggle to find the word tell them the word you are looking for and repeat the word’s definition.
• At the end say “That’s right; our special words last time were wrist and ankle.” Ensure that all the children repeat the words.

Activity – ‘Shake your...’ Ask the children to stand up, call out instructions for them such as ‘shake your wrist’ ‘move your ankle’ etc. You might want to do individual instructions or group instructions depending on ability.

MAKE IT HARDER.... Ask the children to call out instructions for the other children to follow
Get Ready for Learning (GR4L)

- Extend intervention research with monolingual children with language weaknesses (e.g. Bowyer-Crane et al, 2008; Fricke et al, 2013) to growing population of EAL children

10 schools (n=160)

- N=80 EAL children (8 per school)
  - N= 36 Oral Language Intervention (4 per school)
  - N= 36 Waiting Control (4 per school)

- N=80 English Only children (8 per school)
  - N= 36 Oral Language Intervention (4 per school)
  - N= 36 Waiting Control (4 per school)
# Screening/Selection Measures (N=144)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Intervention</th>
<th>Waiting Control</th>
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</thead>
<tbody>
<tr>
<td>Language group</td>
<td>Monolingual</td>
<td>EAL</td>
</tr>
<tr>
<td>Age months</td>
<td>56.03 (3.31)</td>
<td>55.00 (3.51)</td>
</tr>
<tr>
<td>CELF sentence structure (scaled)</td>
<td>5.14 (2.27)</td>
<td>4.78 (2.10)</td>
</tr>
<tr>
<td>CELF expressive vocabulary (scaled)</td>
<td>6.67 (2.45)</td>
<td>5.00 (3.14)</td>
</tr>
<tr>
<td>ERB Nonword Repetition (raw)</td>
<td>9.11 (4.46)</td>
<td>10.64 (3.13)</td>
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Overview of Intervention

**Reception 1**
(9 weeks)
- 3 x 30 min group sessions
- 2 x 15 min individual sessions
- Narrative, vocabulary, listening
- Introduction to phonological awareness

**Reception 2**
(9 weeks)
- 3 x 30 min group sessions
- 2 x 15 min individual sessions
- Includes letter sound knowledge and phoneme awareness

- Delivered by trained and supported TAs in schools
- Written to encourage active participation on part of child
- Uses multi-contextual techniques within repetitive framework
Results

<table>
<thead>
<tr>
<th>Intervention Waiting Control</th>
<th>Intervention Waiting Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expressive Naming</strong></td>
<td><strong>Expressive Definitions</strong></td>
</tr>
<tr>
<td>Pretest</td>
<td>Posttest</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Maintenance</td>
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</tbody>
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* *
Primary Outcomes

Narrative Comprehension: Post-Test
Results

• Narrative comprehension advantage not maintained at maintenance test

• No treatment effects for:
  • Narrative production
  • Language (grammar, vocabulary and listening comprehension)
  • Phonological awareness
  • Emergent literacy (letter knowledge, early word reading, spelling)
What is Evidence: Early Intervention Foundation

From Early Intervention Foundation:
http://www.eif.org.uk/

**Effectiveness**
Evidence from at least two high-quality evaluations demonstrating positive impacts across populations and environments lasting a year or longer. This evidence may include significant adaptations to meet the needs of different target populations.

**Efficacy**
Evidence from at least one rigorously conducted evaluation demonstrating a statistically significant positive impact on at least one child outcome.

**Preliminary Evidence**
Evidence of improving a child outcome from a study involving at least 20 participants, representing 60% of the sample using validated instruments.

**Logic Model**
Key elements of the logic model are being confirmed and verified in relation to practice and the underpinning scientific evidence. Testing of impact is underway but evidence of impact at Level 2 not yet achieved.

*High quality evaluations do not need to be randomized control trials if a credible and robust counter-factual can be provided in other ways.*
Levels of Evaluation

- Monitoring
- Implementation
- Before and After
- Effectiveness Evaluation (typically RCT)

Adapted from Better Start Bradford Innovation Hub Toolkit
https://borninbradford.nhs.uk/what-we-do/pregnancy-early-years/toolkit/
# Fidelity

- Observations rated 1-5

<table>
<thead>
<tr>
<th>Intervention Block</th>
<th>Group Session (46/55)</th>
<th>Individual Session (22.5/36)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Range</td>
</tr>
<tr>
<td>Part 1</td>
<td>3.02 (0.75)</td>
<td>1.42 - 3.92</td>
</tr>
<tr>
<td>Part 2</td>
<td>3.30 (0.96)</td>
<td>1.43 - 4.57</td>
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</tbody>
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Challenges

• Implementation
  • “I couldn’t fit the sessions into the timetable. I tried to do the groups regularly but I just couldn’t find the slots to do the individual sessions over time”

• Preparation
  • “Hard, hard to find the time”
  • “Yeah sometimes I had to do it after work, or do it over lunch. I mean the second group was a bit easier because we could use your feedback from the first group”
Challenges

• **Suitability for children:**
  - “He could understand everything I was saying but he just couldn’t verbalise it back.
  - “The little girl from your class she just got left behind because she just copied whatever the other one said or else just copied whatever I said. I don’t think she had the understanding at all”

• **Content**
  - ”The narrating was definitely too much for some of them in reception. They just didn’t really understand it”
  - “It was just the sort of vocab and that got harder and more...it just become too much for the children I had”
Benefits

• **Routine:**
  - “Even the having the, yeah, the routine, they knew exactly what was coming and what was next”
  - “Once you got into that routine, you could be organised.”

• **Enjoyment:**
  - “They really enjoyed it, especially like with the Ted…”
  - “The group ones, I observed a few of those, and the children seemed quite attentive”
  - “Yes, when I went into watch them, they were quite enthusiastic when they knew what they were doing. Because there was quite a few different resources”
Sources of support for evaluation

• Better Start Bradford Toolkit
  https://borninbradford.nhs.uk/what-we-do/pregnancy-early-years/toolkit/

• Early Intervention Foundation
  http://www.eif.org.uk/

• Education Endowment Foundation
  https://educationendowmentfoundation.org.uk/
Thank you

• Schools, pupils and parents
• Funders – Nuffield Foundation
• Research assistants and students
• Thank You for listening