



# NSW Speech Pathology Evidence Based Practice Interest Group

## Critically Appraised Paper (CAP)

### CLINICAL BOTTOM LINE:

Teachers trained in using books and extension activities to teach vocabulary in a preschool classroom setting, can increase the vocabulary development of 4 year olds from low-income families attending a Title I early learning centre.

### Clinical Question [patient/problem, intervention, (comparison), outcome]:

Does the use of books and narratives increase the expressive language in 2 – 4 year old children?

### Citation:

Wasik, Barbara, A. and Bond, Mary Alice. (2001). Beyond the Pages of a Book: Interactive Book Reading and Language Development in Preschool Classrooms. Journal of Educational Psychology, volume 93(2), June 2001 page 243-250

### Design:

- Group design: 2 control classrooms, 2 intervention (randomly assigned).
- Children were specifically chosen through their eligibility for placement based on a school readiness screening developed by the school district and their attendance at a specific Title I early learning centre.
- Children were pre and post-tested on target words using a specially developed receptive language measure containing a subset of the target vocabulary words and PPVT-III, and post test with picture cards that served as referents for the words used during interactive book reading.
- Intervention and control groups were compared.
- Intervention and control teachers' frequency of use of the vocabulary were compared through classroom observation.
- 100 target words in all. No home component.

### Participants:

127 4-year-olds from low-income families attending a Title I early learning centre in Baltimore Maryland. 94% of the children were African Americans eligible for placement based on a school readiness screening. Mean age was 4;3 (3;11 – 4;7). Four teachers participated in the project.

### Experimental Group:

61 children completed the project (3 left the school); 2 teachers taking a morning and afternoon class. Intervention did not occur over consecutive weeks in the 15 week – 4 days/week project.

- AIMS: provide multiple exposure to vocabulary that was salient (concrete) and provide teacher training.
- An experienced preschool teacher modelled the shared book reading and assisted with the extension activities during the first 4 weeks, and the teachers completed it independently over the last 11 weeks.
- Intervention involved training the teachers in interactive book reading techniques (defining vocabulary, asking open-ended questions, inviting dialogue with children, and providing opportunities for the children to use vocabulary) and extension activities related to the books. Teachers were also provided with guidance about how to get children to listen.
- All necessary resources (books and materials) were provided in a box around themes commonly taught in the preschool. Instructions and examples of questions were also provided.
- Specifically: introduce the target vocabulary before the book reading using concrete objects (“what’s this?” then “what can I do with this?” or “tell me what you know about this”); ask open-ended questions during the book reading; ask reflection questions after the story; carry out an extension activity (craft/science) related to the book and continue to expose children to the vocabulary.
- Teachers were instructed to read one of the two books twice and the other book once each week.
- A specific schedule was used each day of the week in presenting the books and materials – (1) identification of concrete props (taught on error) + 1 book read (2) labelling of props + same book read + extension activity (3) second book was read + labelling props (4) extension activity, book was read + props used during reading and available for interaction in the classroom at all times.

**Control Group:**

60 children completed the project (3 left the school); 2 teachers taking a morning and afternoon class.

- Control classes engaged in arts and crafts and science activities during the same time but were not related to the book reading.
- On 2 occasions the control teachers were asked to implement the same activity as the intervention teachers so that a comparison could be made.
- Teachers read the same books the same number of times but weren't trained in interactive book reading.

**Results:**

- Children in the intervention group learned more book-related vocabulary and scored significantly better on the PPVT-III.
- Intervention teachers used target words more frequently during extension activities.
- Classroom observation indicated that intervention did have an effect on teacher behaviours, specifically in the enhanced frequency of elaborated use of target words.

**Comments on Design:**

- Type 1 error is greatly inflated when students, instead of classroom means, are used as the unit of analysis. Data was reported in 2 ways – with classrooms as the unit of analysis and with students as the units of analysis → results were identical for both.
- They didn't indicate what the criteria was for placement at this early learning centre (school readiness screening)
- They didn't report on the size of difference
- They didn't mention reliability
- They didn't comment on or assess the status of the children – ie hearing status, cognitive status
- The project would be relatively easy to replicate – scripts were provided.
- Very nice research into a difficult area to research. Large numbers, well controlled, based on sound theory and research. Good use of statistics.
- Not about Language Impaired children.
- Few details on children or on teachers.

**Level of Evidence (NH&MRC):** III – 1 (pseudo-randomised control trial)

**Appraised By:** Paediatric Language Group  
**Clinical Group:**

**Date:** August 2006