



## Study Design

A randomized controlled trial design (the “gold standard” of experimental design) was used to assess the impact of the *ABC and Beyond* program on educators’ ability to use literacy promoting strategies and the subsequent effect on the children’s literacy skills.

The subjects consisted of early childhood educators and the children they worked with in their child care centres.

### Educators

- 20 early childhood educators comprised the sample group
- all educators were female, had a diploma or degree in early childhood education and at least two years of teaching experience.
- all educators were randomly assigned to the experimental or control group (10 and 10)
- the experimental group attended the *ABC and Beyond* program

The control group received no training (they instead participated in the program once the study was complete).

### Children

- 76 preschool children (34 boys and 42 girls)
  - all of the children were between 44 and 69 months of age
  - all of the children were typically developing
- 76.3% of the children were in subsidized child care spaces, indicating that they were from families of low socio-economic status – a risk-factor traditionally associated with poorer linguistic and literacy abilities

## Measures

The research involved pre- and post-test videotaping of teachers interacting with the children. The videotape data was then coded and analyzed with regard to the following study questions below:

**1 a) Did *ABC and Beyond* increase educators’ use of abstract language during interactive storybook reading?**

This was important since exposing children to more sophisticated, abstract language is what enables them to learn to use this type of language themselves. Understanding and use of abstract language is critical for reading comprehension.

**1 b) Did the children increase their responses to educators’ abstract language?**

**2 a) Did educators use more print referencing keywords (such as “spell”, “letter” “write” etc.), letter names and references to the sounds letters make during storybook reading and a post-story craft activity?**

This was examined since frequent exposure to these common literacy terms as well as to letter names and sounds is an important component of early literacy.

**2 b) Did children increase their responses to educators’ references to print referencing keywords, letter names and sound references?**

## Results

The speech (utterances) of the educators and children were categorized into four levels of abstraction (Girolametto, Weitzman, Lefebvre, & Greenberg, 2007).

### Level 1

Basic and simple comments or questions which referred to colour, size, one element in the picture or story, including labeling objects, actions, characters, colors, or object locations (e.g., "It's a bird."; "That's red"; "What's the boy doing?"; "Where's the cat?")

### Level 2

Comments or questions that link two objects or actions in a picture (e.g., "The boy is on the chair"; "What are the cat and mouse doing?"). This includes utterances that provided general descriptions of a scene (e.g., "They are fighting over the bone").

### Level 3

More abstract comments or questions that link the events or actions in a story to events or actions from the children's experiences. These introduce elements from outside of the picture into a conversation about the story (e.g., "Have you ever been scared of falling?"; "I like my hot dog with mustard on it"). Level 3 includes comments or questions that refer to the characters' feelings, the children's emotions and word definitions.

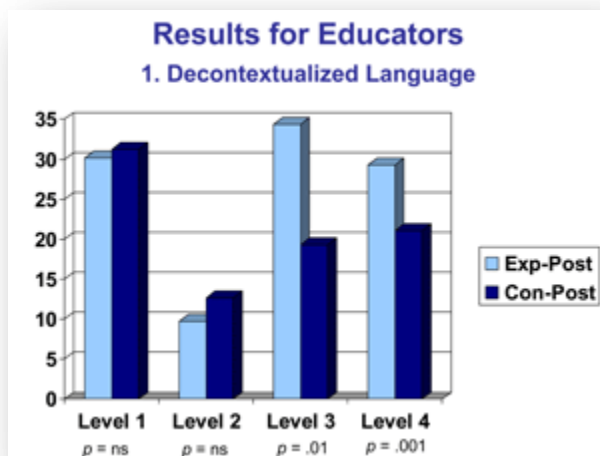
### Level 4

The highest level of abstraction – i.e., the use of language to imagine, infer, predict, explain, project etc. (e.g., "Do you think the girl is misbehaving?"; "What's going to happen next?"; "What would happen if...?"; "Imagine what would happen if she ate that?"; "She's angry because she has to go to bed".)

## Educators Results

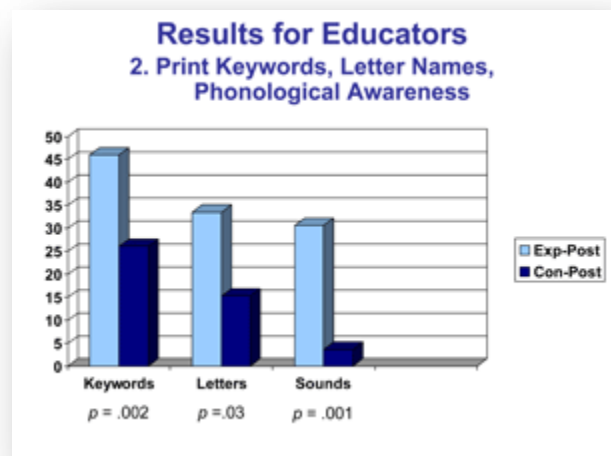
### Abstract Language (also called decontextualized language)

There were minimal differences in the educators' use of low-level (Levels 1 and 2) comments and questions. However, post-program, the experimental group used significantly more Level 4 utterances and Levels 3 and 4 utterances combined than did the control group.



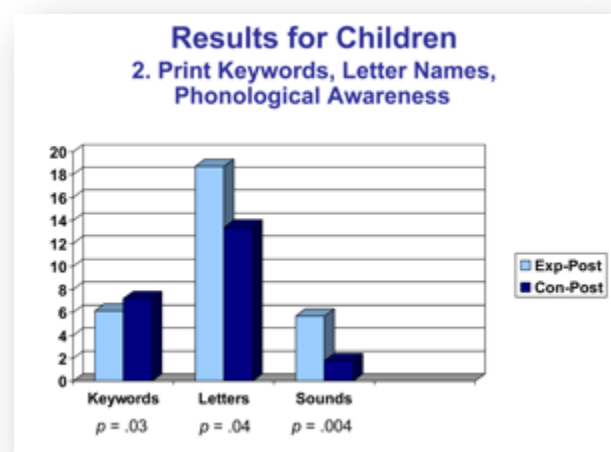
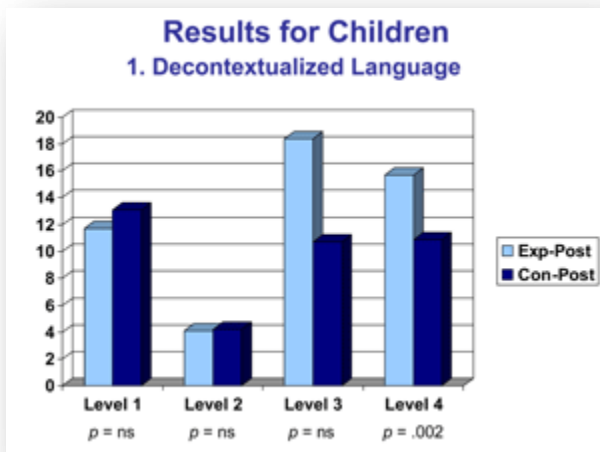
### Print Keywords, Letter Names and References to Sounds in Words (known as Phonological Awareness)

The data on educators' use of print keywords, letter names and the sounds in words – e.g., “Sock starts with the ‘ssss’ sound”) showed similar significant differences between the experimental and control groups.



## Children's Results

The children's results mirrored those of their educators. As educators' use of abstract language, letter names and references to sounds in words (i.e., phonological awareness) increased, **so too did the children's**. In addition, it is important to note that children's Level 4 utterances showed a significant increase in comparison to the control group, demonstrating that children *can* use highly abstract language, but only when they are exposed to it in conversation.



## Discussion

This research demonstrates that *ABC and Beyond*, an in-service education program with an explicit focus on educators' emergent literacy practices, is effective in increasing their use of strategies which promote children's emergent literacy skills.

Compared to the control group, the educators in the experimental group demonstrated significant increases in the following areas:

- Use of abstract language (also known as decontextualized language)
- References to print concepts – i.e. use of words that “talk” about print, e.g. “read”, “spell”, “word”, “letter”
- References to names of the letters of the alphabet - to build alphabet knowledge
- References to the sounds that make up words - to build phonological awareness (e.g., “Man” starts with the “mmmmm” sound)

The most striking finding is that when children are engaged in interactions in which they are exposed to models of abstract language and to references to letter names and sounds, they learn to use these skills themselves. Conversely, if they do not gain this exposure, they do **not** spontaneously use these skills.

*ABC and Beyond's* explicit focus on emergent literacy, as well as its more intensive nature and the inclusion of video feedback sessions appear to have been important contributors to the efficacy of this program. The results of the study confirm the importance of educators as primary change agents, and of the focus of the intervention as occurring within the context of everyday caregiver-child interactions.

## Additional Information

To learn more about *ABC and Beyond* and other Hanen Programs, please visit:  
[www.hanen.org/Hanen-Programs.aspx](http://www.hanen.org/Hanen-Programs.aspx)

For general information about The Hanen Centre's Programs, Workshops and Resources for Parents, Caregivers and Professionals, please visit [www.hanen.org](http://www.hanen.org).

## References

Girolametto, L., Weitzman, E., & Greenberg, J. (2012). Efficacy of a professional development program for facilitating preschoolers' emergent literacy skills in early childhood settings. *American Journal of Speech-Language Pathology, 21*, 47-63.