



The World of Words (WOW): Enhancing vocabulary and conceptual development for preschool children at risk

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Logic Model

Our goal:

Proximal Outcomes

Increased teacher, child talk

Improved L/L environment

Intermediate Outcomes

Increased conceptual knowledge

Increased receptive & expressive vocabulary

Distal Outcomes

Improved growth trajectories



Lesson Design

Vygotskian Model

Step 1: Get Set

Identify topic, introduce prototype—
explicit instruction

Step 2: Give Meaning

Learn new in-category words

Step 3: Build Bridges

Compare in- and out-category items

Step 4: Step Back

Support active discussion





Curriculum Overview: Content-rich instruction

- ◇ Tuning In & Content Video
- ◇ Teacher-Student Dialogue
- ◇ Information Book Reading
- ◇ Picture Cards
- ◇ Time for a Challenge
- ◇ WOWphone

Sesame Workshop Video Content



Lessons always begin with a Tuning In clip, which illustrates a selected phonological awareness skill or letter sound and gives children an opportunity to practice with their teacher.



Video clips highlight the key concept and related vocabulary. Teachers and children co-view a video segment, engaging in discussion about what they saw and heard in the video.



Teacher- Student Dialogue



Teachers and students practice words and concepts together, using call and response techniques.

WOW Books



Each day the teacher will read a part of the specially developed information book designed to use words and ideas from the video, and connect it to children's personal experiences.





Children receive take-home books to color and read with their parents.



Picture Cards



Picture cards help children learn new ways to categorize their new knowledge and sort new words. Sorting cards created a number of unique opportunities for children to use their new words and concepts.

Time for a Challenge...



The snake in the middle represents a “challenge” word. Children debate whether a snake could be a pet, based on the concepts they learned defining what a pet is.




WOW Phone



Wild Animals Category
 Pets Category
 Water Animals Category

Choose Category

Picture 1



Zebra

Correct Incorrect

Ms. Marie 1st	Harry
Ms. Marie 2nd	Hermione
Ms. Janine 1st	Ron

Add Class Add Student

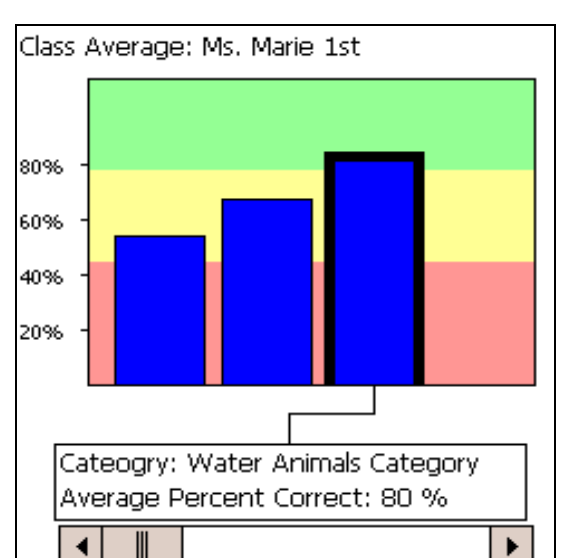
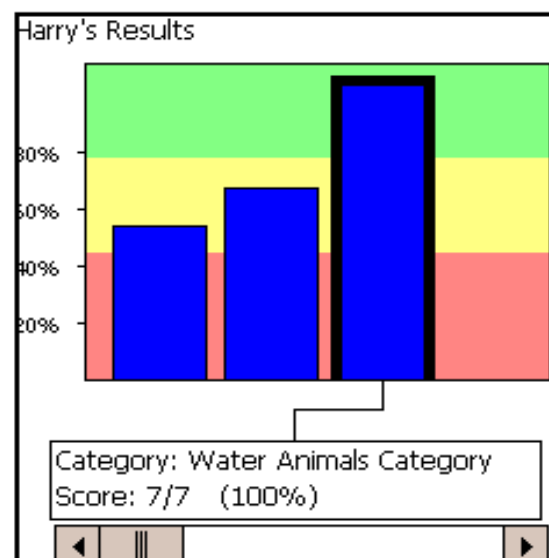
Start Category

Results

Student Results:
 Press this button to show Harry's results.

Category Results:
 Press this button to show all results from the Water Animals Category.

Overall Results:
 Press this button to show aggregate results from all students and categories.



A Formative Experiment*

- What factors enhance or inhibit the intervention's effectiveness in achieving goals?
- How can the intervention be modified to better achieve goals?
- Have the outcomes been met? Why or why not?
- Qualitative and quantitative evidence



A Formative Experiment

- ◇ Teachers and students in 22 classes
 - ◆ N=322
 - ◆ 12 treatment classes; Six exemplary teachers
 - ◆ 10 control; Five average teachers
- ◇ Four-month trial
 - ◇ Pre-post PPVT; WOW; GGG; Tell Me
 - ◇ Progress-monitoring-WOW-end of unit; GGG
 - ◇ Video-taping circle time conversations- T/C
 - ◇ ELLCO; Focus groups; Observations
- ◇ Seven categories in two units assessed



Child Characteristics

Sample	N	Female N	Minority N	Age in Months T1 Mean (SD)
Whole Sample	322	162 (50%)	136 (42%)	51.40 (6.01)
Treatment Only	192	95 (50%)	75 (39%)	52.16 (5.80) ^a
Control Only	130	67 (52%)	61 (47%)	50.62 (6.23) ^a

a. Treatment and control groups are significantly different by age; $t = -2.27, p < .05$.

Teacher Characteristics

Sample	N	Minority N	Age Mean (SD)	Years Experience Mean (SD)
Whole Sample	13	2 (15%)	39.54 (10.80)	10.31 (7.40)
Treatment Only	7	1 (14%)	43.57 (10.60)	12.14 (9.37)
Control Only	6	1 (17%)	34.89 (9.79)	8.17 (3.97)

Teacher Feedback

◇ Lesson length and managing attention

- ◆ Long lessons, but rich and engaging materials
- ◆ Choral response: mixed reviews
- ◆ Pre-viewing questions
- ◆ Explicit instruction

◇ Children's learning

- ◆ Excitement over “sophisticated” language
- ◆ Interest, persistence, engagement
- ◆ Home-school connection via take-home books





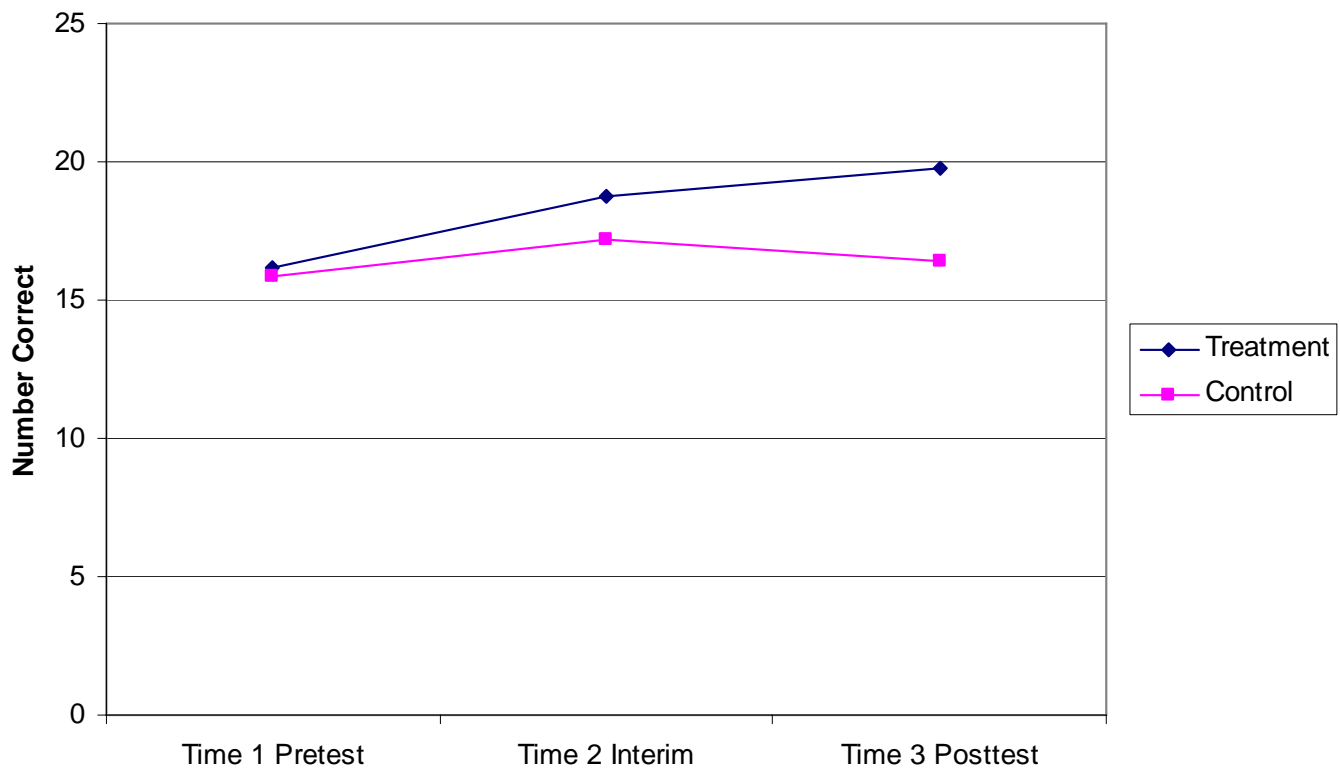
Child Outcomes

- ◇ PPVT-III
- ◇ **G3 Picture Naming**
- ◇ **WOW Vocabulary**
- ◇ PA: Alliteration
- ◇ **PA: Rhyming**

Expressive Vocabulary: G3 Picture Naming



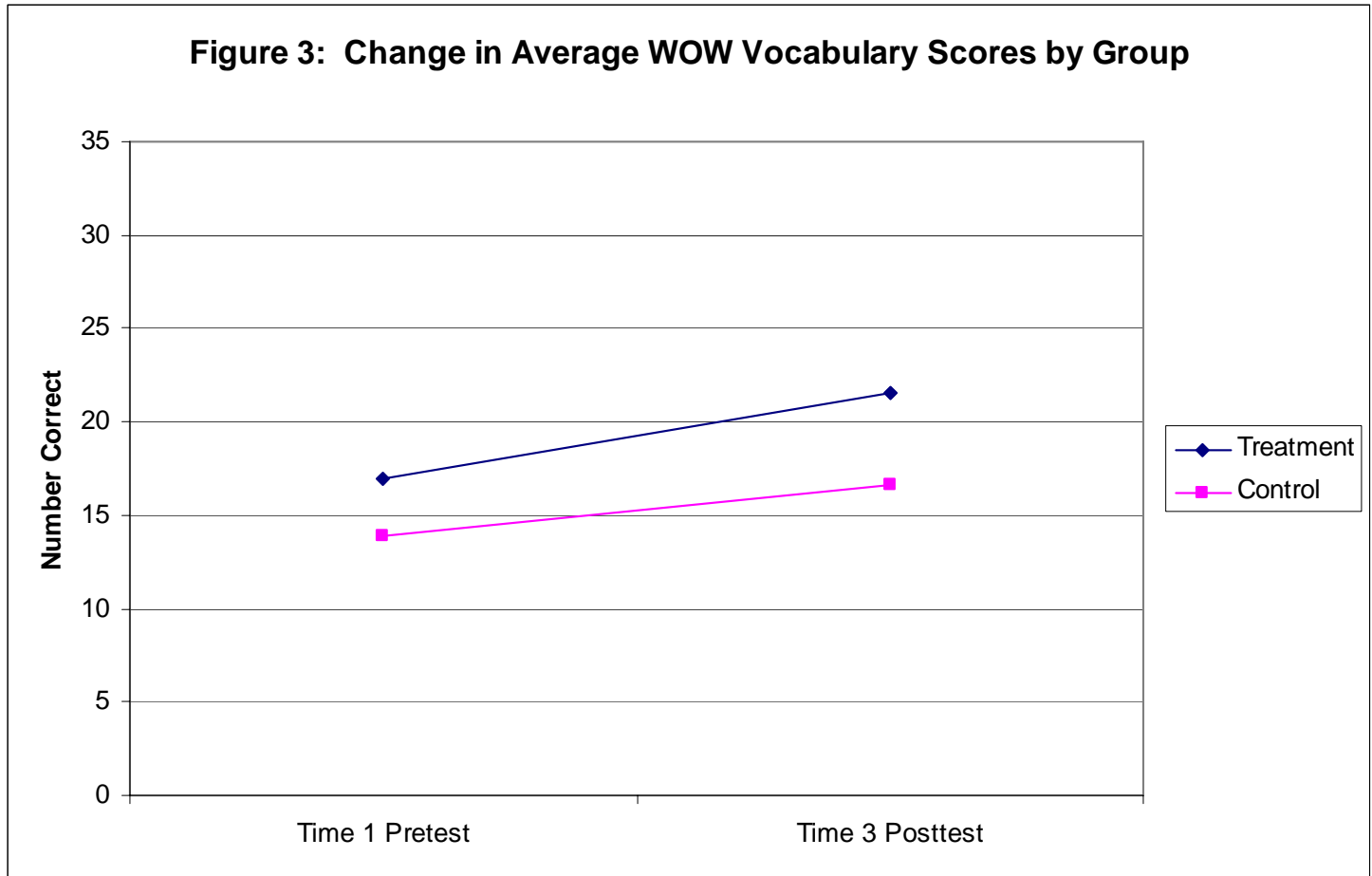
Figure 2: Change in Average Picture Naming Scores by Group





Expressive Vocabulary: WOW In-Category Words

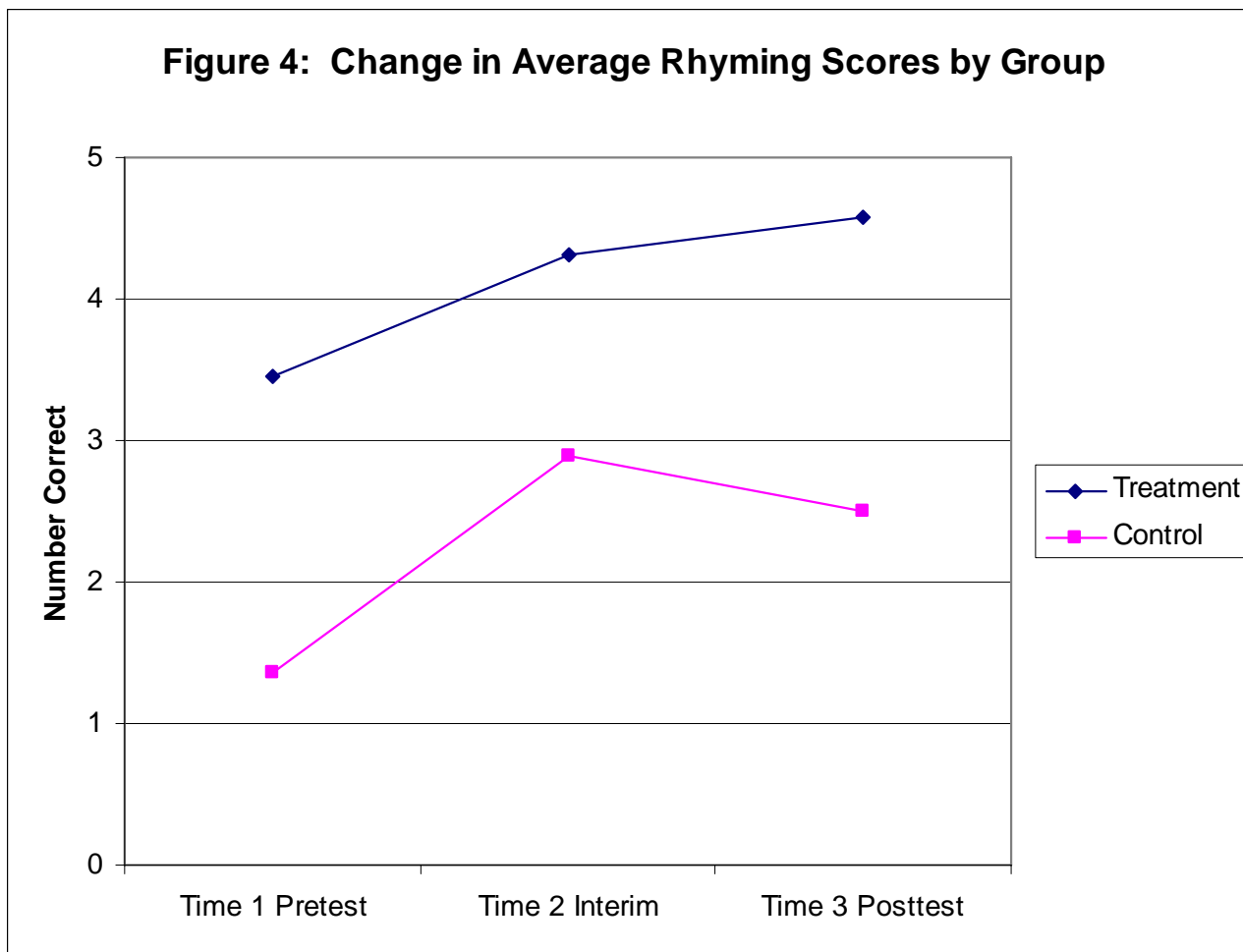
Figure 3: Change in Average WOW Vocabulary Scores by Group



Phonological Awareness: G3 Rhyming



Figure 4: Change in Average Rhyming Scores by Group





Benefits of Formative Experiment

- ◇ Evidence of learning what we taught; no evidence for improved language skills
- ◇ Justifies curriculum; revisions
- ◇ Child assessments; refinements
- ◇ Benefits of multimedia



Thank You!

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