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

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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

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Curriculum Overview: Content-rich instruction

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

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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.

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WOW Phone
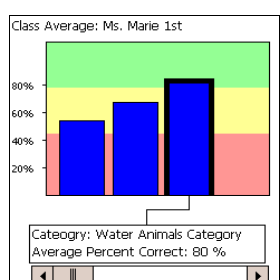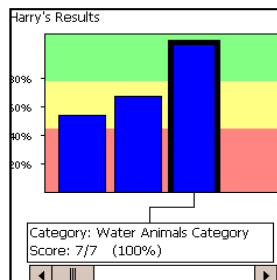
A Formative Experiment*

- 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 topics in two units assessed

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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
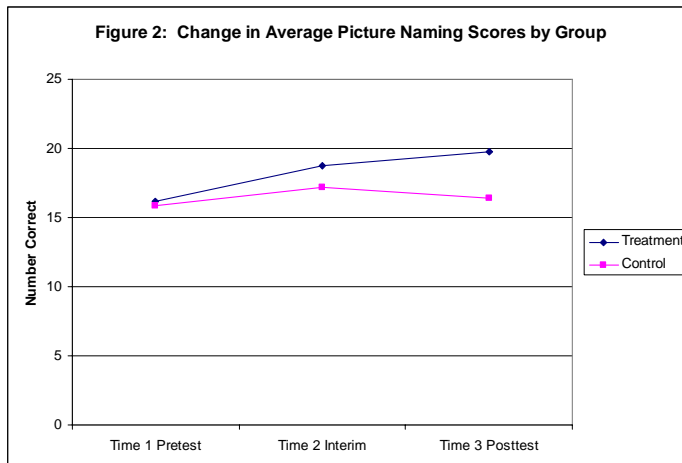- ♦ Home-school connection via take-home books

Child Outcomes

◇ PPVT-III

◇ **G3 Picture Naming**

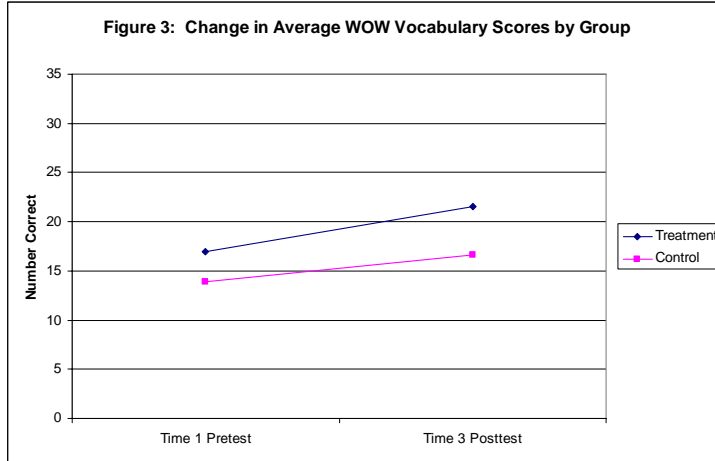◇ **WOW Vocabulary**

◇ PA: Alliteration

◇ **PA: Rhyming**

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Expressive Vocabulary:
G3 Picture Naming

Figure 2: Change in Average Picture Naming Scores by Group

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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
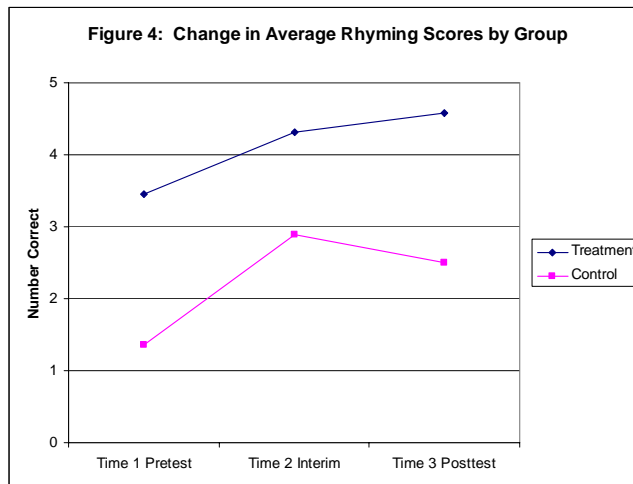
Benefits of Formative Experiment

◇ Evidence of learning what we taught; no evidence for improved language skills

◇ Justifies curriculum; revisions

◇ Child assessments; refinements

◇ Benefits of multimedia

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Thank You!

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