



## **World of Words: Learning Words and Categories**

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National Reading Conference Annual Meeting  
28 November 2007**



## **Overview**

- Vocabulary Retention
- Vocabulary Categorization





## Part I: Vocabulary Retention

Research suggests that:

- 1) Vocabulary learning proceeds in incremental steps through exposure (Carey, 1978; Nagy & Scott, 2000)
- 2) Practice using target vocabulary is important (NRP, 2000; Snow, Burns, & Griffin, 1998)
- 3) Review of previously taught vocabulary is critical (Biemiller & Boote, 2006)



## Research Questions

- 1) Did children learn words?
- 2) If so, did they retain that learning?





## Vocabulary Assessments

- Expressive vocabulary assessments
- 23 words assessed at 3 time points
  - Pretest
  - End of Topic Assessment
  - Posttest
- Five words were dropped from analysis due to ceiling effect
- N = 18 words



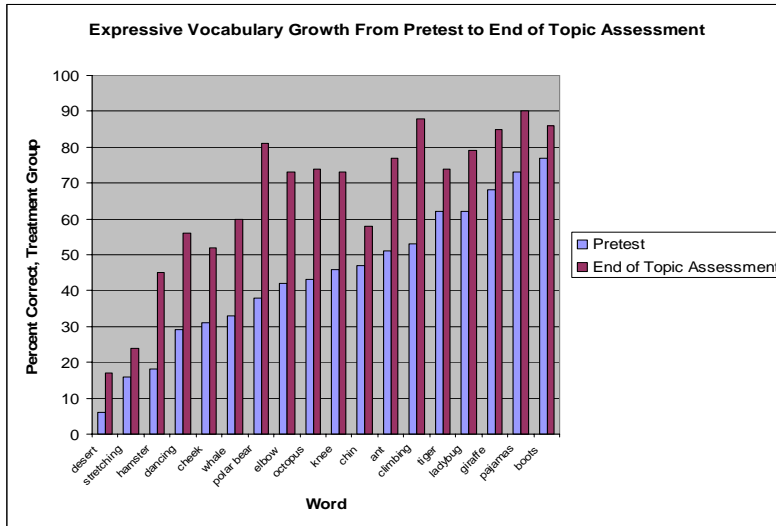
## Vocabulary Assessments

- Words were chosen as exemplars of a particular category or concept and taught through teacher language, video clips, picture cards, and books

Parts of the Body	Clothing	Exercise	Pets	Wild Animals	Animals that Live in Water	Insects
chin cheek elbow knee	boots pajamas	climbing dancing stretching	bird hamster	desert giraffe polar bear tiger whale	octopus	ant ladybug



## Research Question 1: Did children learn the words that were taught?

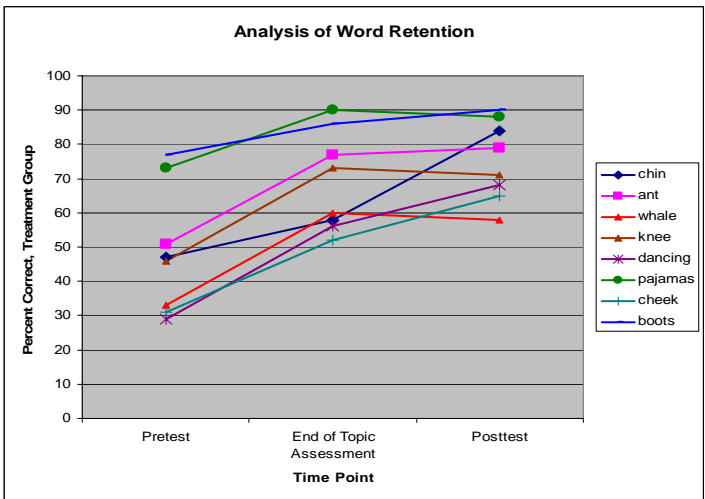


## Research Question 2: Was word learning retained?

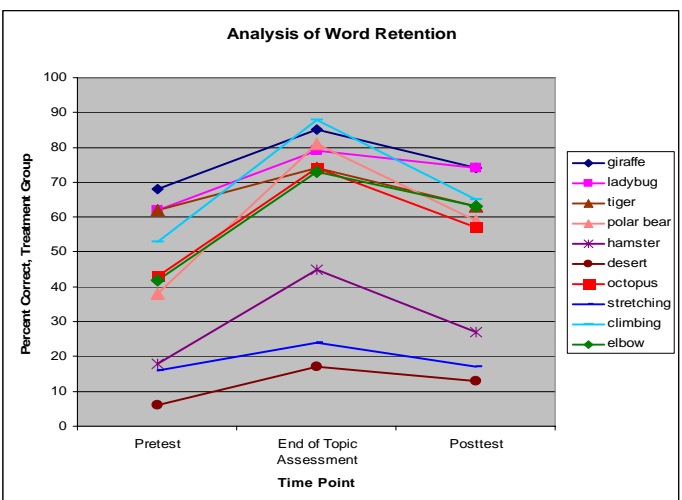
- Two distinct patterns:
  - Words learned initially and retained
  - Words learned initially and *not* retained



# Words Learned Initially and Retained



# Words Learned Initially But Not Retained





## Part II: Vocabulary Categorization

- Taxonomic categorization has great inductive potential (Gelman, 1998)
- One aspect of the WOW curriculum is that it teaches words in taxonomic categories
- This includes teaching properties common to members of the category and teaching sophisticated words necessary for deep conceptual knowledge of the category (i.e. “habitat”, “survive”, “camouflage”, and “tame”)
- We hypothesize that helping children to organize vocabulary taxonomically will offer “inductive potential”



## Assessing Vocabulary Categorization

- At the end of each topic, children were shown pictures of items and asked to:
  - 1) Name the item
  - 2) Categorize the item
- Half of the items were explicitly taught in the WOW curriculum and half were not explicitly taught
- By assessing the words not explicitly taught, we were investigating if children could apply the concepts and properties learned to taxonomically categorize items that were not explicitly taught



## Assessing Vocabulary Categorization

A: What is this?

C: Ladybug.

A: Is it an insect? Yes or no?

C: Yes.

A: **Why do you think a ladybug is an insect?**



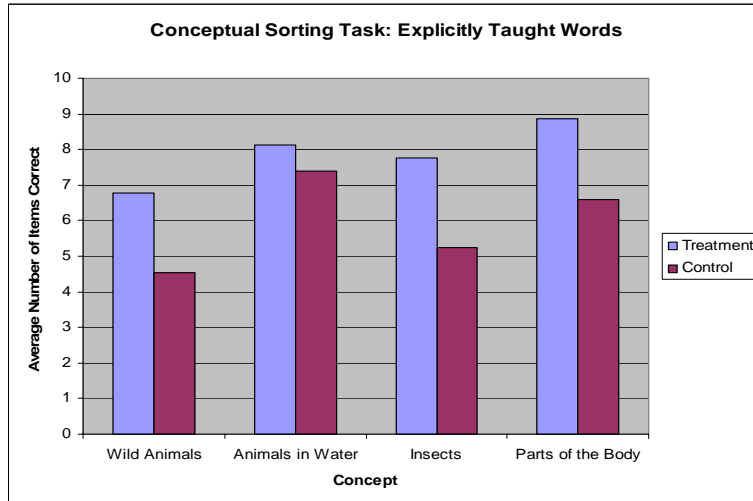
## Research Questions

3) Were treatment children better able to taxonomically categorize words explicitly taught in the WOW curriculum?

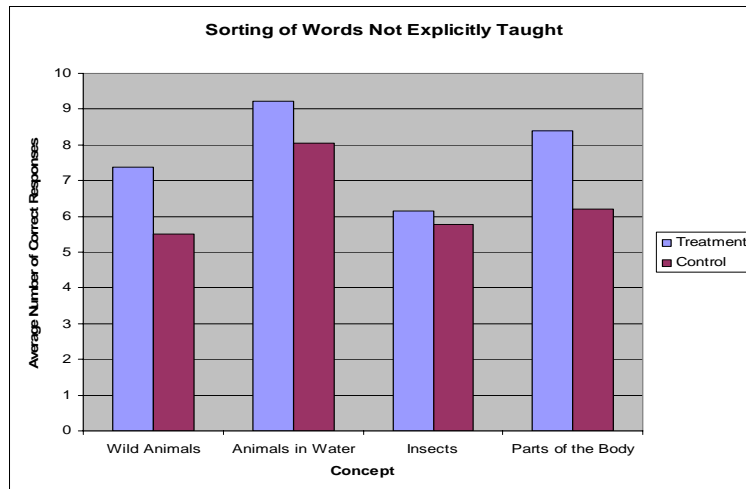
4) Were treatment children better able to taxonomically categorize words *not* explicitly taught in the WOW curriculum?



### Research Question 3: Were children able to taxonomically categorize words explicitly taught in the WOW curriculum?



### Research Question 4: Were children able to taxonomically categorize words *not* explicitly taught in the WOW curriculum?







## Sample Rationale

### Wild Animals

Main concepts and properties:

- Wild animals live outside and away from people
- Wild animals are not tame
- Wild animals live in different habitats

#### **Sample Rationale: Raccoon**

A: Is a raccoon a wild animal?

C: Yes.

A: How do you know a raccoon is a wild animal?

C: Because it is in the woods.



## Sample Rationale

### Parts of the Body

Main concepts and properties:

- Our bodies have many parts
- Parts of the body are attached and cannot come off like clothing
- Each part of the body has a job to do

#### **Sample Rationale: Heel**

A: Is a heel a part of the body?

C: Yes.

A: Why do you think a heel is part of the body?

C: Because it helps you walk.



## Discussion

- We hypothesize that providing children with the type of categorical and conceptual knowledge demonstrated here will serve as a foundation for word learning
- We posit that children with this type of knowledge will learn words more quickly and easily
- Steps for future research include investigating if children who have acquired this type of categorical vocabulary knowledge are able to learn words more easily and quickly than children who do not have this knowledge



## Conclusion

- More sophisticated words may require review to be retained
- Our findings suggest that when children learn the properties and concepts related to taxonomic categories they may be able to transfer that learning to new words