Developing High Frequency Academic Vocabulary in English-Language Learners: Findings from an Intervention Study

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Overview of Presentation

- Study goal
- Research questions
- Methods
- Intervention curriculum
- Findings
The goal of this research was to assess the effects of an intervention on second-grade English-language learners’ acquisition of high frequency English vocabulary.
Research Questions

- Are there treatment/control differences in vocabulary knowledge as a result of the intervention?
- Are there treatment/control differences on each specific word type (i.e., concrete, abstract, cognate, non-cognate)
Research Design: Context and Participants

- 424 second grade Spanish-speaking English-language learners (ELLs) in 22 classrooms in high poverty schools in the Southwest
  - 228 students (ELLs) in the treatment group
  - 196 students (ELLs) in the control group
  - 18 week intervention implemented during English-as-a-second language (ESOL) period for 20 minutes per day, four days a week
  - Students were participating in transitional bilingual programs where all instruction was in Spanish except for 60 minutes per day of ESOL instruction
Research Design: Experimental Conditions

- Teachers randomly assigned to treatment or control groups
- Treatment condition
  - Explicit vocabulary instruction through pre-teaching, interactive reading, review and reinforcement activities
- Control condition
  - Target vocabulary appears in text but no instruction or definitions provided
- Vocabulary stratified by word type
  - Conceptual complexity: Concrete versus abstract words
  - Cognate status: Cognates versus non-cognates
## Examples of Word Types

<table>
<thead>
<tr>
<th>Concrete</th>
<th>Cognate: applied delicate quantity singular</th>
<th>Non-Cognate: clung illness opposite weary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>Examples: confidence responsibility informed preferred</td>
<td>Examples: actually dreadful judgment quality</td>
</tr>
</tbody>
</table>
Measures

- Pre- and post-assessments
  - Curriculum-based measure (CBM) of vocabulary
    - Correlation with TOLD Oral Vocabulary subtest ($r=.66$, $p<.01$)
    - Post-test reliability ($\alpha = .91$)
  - Standardized measures
    - Test of Oral Language Development (TOLD) Oral Vocabulary subtest
    - Passage Comprehension Subtest of the Woodcock Munoz Language Survey
1. Put your finger on number 1. Number 1. These players feel very bad because they lost their game. When someone feels very bad, do we say they feel “dreadful,” “remarkable,” or “enthusiastic”? Listen again and bubble in the word that means when someone feels very bad: “dreadful,” “remarkable,” or “enthusiastic.”
Intervention: Pre-teaching Vocabulary

A word we are going to learn is *informed*. If you are informed about a situation, you have heard the news and you know what is happening.

*Informed* en español es *informado*. Si estás informado acerca de una situación, significa que has oído las noticias y sabes lo que está pasando.

*Informed* and *informado* are cognates. They sound alike and have similar meanings.

Whole class response: Let’s all say *informed* three times.

Let’s look at a picture that helps us understand the word *informed*. The boy is informed about the birthday party because the girl told him about it.

Model: The informed weatherman tells me if it will be sunny or rainy.

Call on one or two students: What are some things you have learned from informed friends? Use the word *informed* in your answer.

Point to the letters in *informed*: Let’s all spell the word *informed*. What do the letters say?

As we read, I want you to listen for the word *informed*. If you hear it, touch your nose!
Point to the picture on page 9: On this page, Rosa is telling about what happened not long ago. Rosa and her mother are walking down the street towards their house. An informed neighbor tells them their house is on fire. An informed person is someone who knows what is happening.

Call on one student: How do you think Rosa and her mother felt when they found out that their house was on fire? [Responses will vary.]

Call on one student: What did the informed neighbor tell Rosa and her mom? Remember, informed means “knows what is happening.” Start your answer with, “The informed neighbor…” [Anticipated response: The informed neighbor tells Rosa and her mom that their house is on fire.]
Rosa and her mother were coming home from buying shoes. An informed neighbor told them their house was on fire. Rosa’s grandmother was safe. The cat was safe too after a rescue from a daring fireman. All of their things burned. So Rosa and her family went to stay with Aunt Ida and Uncle Sandy.
Intervention: Reinforcement

Whole class response: I am going to name some things. If they are things that might help you to be an informed person, put your thumbs up and say **informed**. If they are not, put your thumbs down and remain quiet.

- Reading the newspaper 💪
- Sleeping 💔
- Watching the news on TV 💪
- Drawing a picture 💔
Intervention: Reinforcement

- Trace the word daring.
- What does the word daring mean?
- Is daring a cognate? Why or why not?
- Listen: The astronaut is very daring because she travels in space outside the spaceship, which can be dangerous.
- Turn to your partner and make up your own sentence using the sentence stem. I will call on several pairs to share their sentences.
- Now we will do the same thing with opposite.
- If you have time during the week, you can write your sentences and draw pictures to illustrate them.

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daring

atrevido

* The _________ is very daring because ___________.

opposite

enfrente

* I sit opposite ____________ in class.
Intervention: Reinforcement

The Kitten in the Tree

An assembly watches the kitten in the tree.
A daring fireman climbs up to set it free.
There is no need for concern.

Song Questions
1. Who watches the kitten in the tree?
2. Who sets the kitten free?
3. Why is there no need for concern?
To address our main research questions we conducted a repeated measures ANOVA for all target vocabulary words together as well as for words of each type (concrete, abstract, cognate, non-cognates) with time (pre/post) repeated within classrooms.

Additionally, we conducted a pre-post repeated measures ANOVA for TOLD oral vocabulary being predicted by condition.
Summary and Conclusions

- Manuscripts reporting data forthcoming
- Intervention was effective in teaching students challenging words (LWV grade 6)
- Intervention was effective in teaching students different types of words (e.g. abstract non-cognates)
  - Holding level of complexity constant, the intervention was most effective in helping children acquire non-cognates.
- Treatment had moderate effects on gains on standardized vocabulary measure
  - Children need explicit instruction and practice in word reading