

TESTING THE EFFICACY OF A COGNATE CURRICULUM

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Empirical and Theoretical Background:

- **Considerable previous work** (García, 1991; Nagy, 1997; National Reading Panel, 2000; Verhoeven, 1990) **suggests that one major determinant of poor reading comprehension, for Latino children and for other lagging readers, is low vocabulary.**
- **Lack of knowledge of the middle and lower frequency 'academic' words encountered in middle and secondary school texts impedes comprehension of those texts, which in turn impedes the natural process of learning new word meanings from exposure during reading** (Stanovich, 1986).

Continued...

- One strategy believed to be successful in promoting the rapid acquisition of vocabulary by ELLs involves teaching children about the morphological structure of words.
- Researchers believe that it is beneficial for ELLs if instruction on the structural analysis of words includes making students aware of the cross-linguistic morphological relationships between words in their two languages (García & Nagy, 1993; Nagy, García, Durgunoglu, & Hancin-Bhatt, 1993; Jiménez et al., 1996; Nation 2001).
- This involves making students aware of words that are cognates (words that are spelt alike and have similar meanings in two languages), and making them aware of similarities between derivational morphemes in the two languages (e.g, *motivación-motivation*).

Research Questions

- Can an intervention developed to teach cognate awareness to Spanish/English bilingual 3rd and 5th graders improve their learning of English words that have cognate status in Spanish?
- Does the cognate recognition strategy transfer to other cognates that have not been instructed?

Subjects

- 130 (122 completed program) 3rd grade Spanish-speaking students
- 128 (105 completed program) 5th grade Spanish-speaking students
- All designated as English Language Learners
- Three public schools in Miami that offered Spanish maintenance for 45 minutes 3 times a week (2 schools implemented at each grade level)
- Majority within each school were Latino/a
- Schools had obtained grades of at least B

Measures

English	Spanish
Pre & Post-intervention	Pre-intervention Only
□ Cognate Awareness Test (48 items)	□ Extract the Base (28 items)
□ Extract the Base (28 items)	□ WLPB Picture-Word Vocabulary
□ WLPB Passage Comprehension	□ WLPB Letter-word ID
Pre-intervention Only	□ WLPB Listening Comprehension
□ WLPB Letter-word ID	□ WLPB Passage Comprehension
□ WLPB Picture-Word Vocabulary	
□ WLPB Listening Comprehension	
Post-intervention Only	
□ SVT Cognate Comprehension (24 items)	

Cognate Intervention

- 3 units on *Exploration: Antarctica, Coral Reefs, & Space*
- General lesson on cognates and learning to recognize them on basis of phonology, orthography, and shared meaning.
- Target words consisted of cognates or noncognates
- Units open with a theme-related video and biography of an explorer.
- Pre-teaching of target words using translation equivalents, child-friendly definitions, and extension activities such as those suggested by Beck and colleagues.
- Words then presented in informational texts with comprehension questions inserted at critical points within the text. All reading conducted as group and orally by the teacher

Instructed cognates	not instructed cognates	Instructed noncognates	not instructed noncognates
permanent	pensive	feasible	allot
conduct	obligated	sway	strife
accumulation	adorn	prey	discard
miniscule	tranquil	shallow	pun
consists	impede	source	drought
potent	detain	environment	jest
isolated	augment	bound	haul
expand	edifice	thrive	gritty
occupies	terminus	replenished	brittle
rituals	profundity	rough	snug
	pallid		feasibility
	castigate		clutch
	anterior		leery

Design 3rd & 5th grade Study

- Recruited all 3rd and 5th grade Spanish speaking ELLs in a school to participate in an after school program and provided free transportation to any family needing it.
- Cognate intervention vs. FCAT Preparation course (*Preparing Students for the FCAT: Thematic, Standards-Based Instruction Grades 4-5* published by Carson Dellosa)
- 4 treatment & 4 control classrooms in each school.
- Stratified random assignment of students to conditions on the basis of WLPB measures in Spanish and English.

Delivery of Treatment and Control Curricula

- 6 weeks (24 lessons)
- Small groups of 8-10 students
- Delivered by school teachers who received 8 hours of training in 4 sessions. (2 pre-treatment and 2 during treatment)
- One hour after-school 4 times a week

Hypotheses:

- Positive effect of cognate instruction
 - Treatment > Control on instructed cognates
 - Treatment > Control on non-instructed cognates
 - Treatment > Control on instructed non-cognates
 - Treatment=Control on non-instructed non-cognates
- Effect of word type favoring cognates
- Effect of English Word Knowledge (EWK) and Spanish Word Knowledge (SWK). EWK and SWK are composite of WLPB Letter-Word ID; Picture-Word ID; Extract the Base
- Interaction of Rx with SWK & EWK
 - SWK should not predict to non-cognates

Summary of Findings

- Obtained positive effect for treatment on instructed cognates and noncognates
- No strong evidence of transfer of cognate recognition strategy to uninstructed cognates
- Spanish Word Knowledge (SWK) predicts to cognates only