CREATE
Center for Research on the Educational Achievement and Teaching of English Language Learners

Enhancing Social Studies Vocabulary and Comprehension for 7th Grade ELLS: Findings from Two Experimental Studies

Sharon Vaughn, Leticia Martinez, Colleen Reutebuch and Sylvia Linan-Thompson

The University of Texas at Austin

Coleen Carlson and David Francis

University of Houston

March 5, 2010

About CREATE

CREATE is a National Research and Development Center funded through the National Center for Education Research (NCER), Institute of Education Sciences (IES), U.S. Department of Education. It addresses specific challenges in the education of English language learners in the middle grades (Grades 4-8)

CREATE is a partnership of researchers from several institutions:

Texas Institute for Measurement, Evaluation, and Statistics, University of Houston
   David J. Francis, Coleen D. Carlson

California State University at Long Beach
   Jana Echevarria, Catherine Richards

Center for Applied Linguistics
   Diane August, Deborah Short

Harvard University
   Catherine Snow

University of California-Berkeley
   Elfrieda Hiebert

Meadows Center for Preventing Educational Risk, University of Texas at Austin
   Sharon Vaughn, Sylvia Linan-Thompson

The Meadows Center
FOR PREVENTING EDUCATIONAL RISK

CREATE

Study Purpose

- Address specific challenges in the education of English language learners in 7th grade social studies classrooms.

- Examine the efficacy of incorporating English-as-a-second language enhancements, such as incorporating visuals and pairing students purposefully, into traditional instruction.

Overview

- Two different non-overlapping samples of classes of 7th grade students (N = 381, N = 507, and N =751)

- Random assignment at classroom (i.e., section) level to social studies intervention or business as usual comparison

- Treatment sections = 7 for *Experiment 1*

- Treatment sections = 9 for *Experiment 2*

Overview (cont.)

Study Timeline

- 9 weeks of materials delivered over 12–16 weeks

- 2–3 days of pre- and post-testing

Activities

- Intervention implemented 50 minutes, 5 days a week during regularly scheduled 7th grade social studies classes

- Coach, professional development, and ongoing support provided to treatment teachers

- Fidelity checks in all classrooms

Participants and Setting: Experiment 1

Schools

- 2 middle schools in central Texas

- At least 65% Latino

- Substantial number of ELLS designated as "Limited English Proficient" (LEP)

- 70-82% qualified for free or reduced lunch

Teachers

- 4 (2 female and 2 male)

- Teaching experience = >1 to 8 years

Participants and Setting: Experiment 2

Schools

- 2 middle schools in central Texas
- At least 51% Latino
- Substantial number of ELLS designated as "Limited English Proficient" (LEP)
- 68-85% qualified for free or reduced lunch

Teachers

- 4 (male)
- Teaching experience = >1 to 3 years

Measures

- GRADE pre and post
  - Vocabulary
  - Comprehension
- Curriculum based content measures
  - Pre
  - Post
- Weekly CBM

The Social Studies Intervention

- Overarching activities:
  - focus on big idea and concept learning
  - use of peer mediated learning
  - provide opportunities for student discourse

- Four intervention components:
  - *explicit vocabulary/concept instruction*
  - *strategic use of video and purposeful discussion to build concepts*
  - *use of graphic organizers and writing to build big ideas*
  - *use of peer pairing*

Purpose of Structured Peer-Pairing

- To provide an interactive and motivating structure for peer-assisted learning

Pairing Procedures

1. Pair students according to reading and language abilities.

2. Rank order students accordingly from highest to lowest.

3. Assign partners, ideally pairing the highest scoring ELL student with the highest scoring non-ELL and continuing until all students have a partner.

Social Studies Lesson Framework

Daily-

1. Start the lesson with an overview that incorporates the big idea.

2. Prioritize and explicitly teach concepts/vocabulary.

3. Use brief video clips to build concepts.

4. Read-aloud by teacher or with student partners.

5. Generate and answer questions.

6. Wrap-up with discussion, graphic organizer or activity.

Weekly-

1. Review and progress monitor.

2. Whole class review of quiz items and clarification/re-teaching/ re-enforcement of concepts, if necessary.

The Texas Revolution, Part 1

Big Idea: What were the people involved in the Texas Revolution: fighting for? Was their cause just?

Standards	7.2E	Trace the development of events that led to the Texas Revolution
	7.3B	Explain the issues surrounding significant events in the Texas Revolution
Lesson Topic		Causes of the Revolution

Objectives	Key Vocabulary
CONTENT—Students will: • Review the events that led to the Texas Revolution. **LANGUAGE—Students will:** • Use key vocabulary in reading, writing, listening and speaking throughout the lesson. • Listen to and/or read the lesson passage, and write question responses in their notebooks. • In the review/assessment activity, discuss and write the people's perspectives on going to war in the graphic organizer.	• custom duties • empresario • land title • revolt
Materials	**Preparation**
• Student notebooks • Overhead projector and transparency markers • Outside Passage: "Road to Revolution" (in teacher's binder) • Transparency: Questions	• Post the objectives • Links to background

Motivation (Engagement/Linkages)	**5 min.**

• Provide overview/background information of today's lesson.

13

1. Talk about the big idea of the lesson

The Texas Revolution, Part 1

Big Idea: What were the people involved in the Texas Revolution: fighting for? Was their cause just?

- *The Texas Revolution was looming as Texans, both Anglo and Mexican, refused to accept the governmental changes made by Santa Anna and the Mexican national government.*

- *We will review some of the governmental changes and how they contributed to the beginning of the Texas Revolution. As the week proceeds, we will talk about specific battles of the Revolution and the people who were involved.*

- *Keep in mind who the people fighting in this war are and what they are fighting for.*

2. Teach pre-selected concepts/vocabulary

revolt
(revuelta, rebelión)
A protest against or intentional disobeying of authority

Synonyms: riot, rebellion

In the 1600s, a **revolt** occurred when the Spanish missions refused to allow the Pueblo Indians to follow their traditional religious beliefs.

A **revolt** occurred when the principal informed the students they would no longer serve pizza in the cafeteria.

Turn and Talk

- Discuss one thing that the government could do that would get you to revolt. (Prompt: Why are people revolting in the picture?)
- Are revolts always violent?

©2009 The University of Texas at Austin

1. Show students concept/ vocabulary transparency.
2. Pronounce the word, give Spanish cognate or translation, and define it.
3. Ask or tell students how the illustration is representative of the word.
4. Use word in two sentences.
5. Use Turn & Talk prompts to help students make connections between the unit of study and what they know.
6. Give students opportunities to encounter the word repeatedly throughout instruction.

CREATE

3. Watch video clip to provide access to text

1. Introduce the video clip before or after students have read the assigned text passage.

2. Preview what students will watch in the video and set the purpose.

3. Play video clip.

4. Conduct a brief discussion about the video.

4. Paired/teacher-led read aloud

1. Partners sit together, each with their own text and notebook.

2. Partner A reads aloud first while Partner B follows along and provides corrective feedback.

3. Partner B reads the same passage while Partner A follows along and provides corrective feedback.

4. Pairs work together to answer 1 to 4 questions.

5. On alternate days teacher does a read aloud and students follow along.

Road To Revolution

The Law of April 6, 1830 changed the lives of the Anglo-Americans and Mexicans who had colonized the Mexican province known as Coahuila-Texas. The Law issued by the Mexican government:

- Banned U.S. immigration to Texas
- Made it illegal to import slaves into Texas and
- Created customs duties on U.S. imports coming into Texas

Before the new law, American settlers had been encouraged to immigrate into the northern Mexico regions, which formed present- day Texas. The borders remained open and busy, allowing hundreds of families, some with slaves, to move to the settlements of the empresarios. Many of the cities and the communities of Gonzales, San Felipe, and Goliad grew quickly.

The Mexican government was concerned by some of the rebellious thinking of these many American colonists and empresarios. For example, one of these empresarios, Haden Edwards, came to settle families in Texas and demanded land titles from settlers who had already been living in the East Texas region for years. When settlers could not provide land titles and prove ownership of land, Edwards threatened to sell their land. Settlers complained to the Mexican government and this led to the Fredonian Rebellion. In addition, the Mexican government feared that Anglo-Americans in the U.S. were trying to steal Mexico. As a result, the Mexican government placed strict conditions to discourage others from coming across the Sabine and Red River borders.

The Mexican army marched into the northern province to enforce border restrictions. Law and order remained in the hands of Mexican government officials under orders to "keep the peace" but also to try to tighten control. The government:

- Collected duties (import taxes) along the Gulf Coast in order to encourage internal trade.

5. Generate and answer questions

Questions

- *Who are the people living in Texas in 1835, right before the Texas Revolution begins? How did they get here?*

- *Why did Mexican government officials issue stricter laws on Texas settlers?*

- *Do you think the Texas settlers were right to go to war against the Mexican government? Why or why not?*

Procedures

1. Preview questions before reading to set the purpose.

2. Ask partners to work together to answer questions once they have completed the reading task.

3. Have pairs generate their own questions as they become more skilled.

6. Review/Assessment
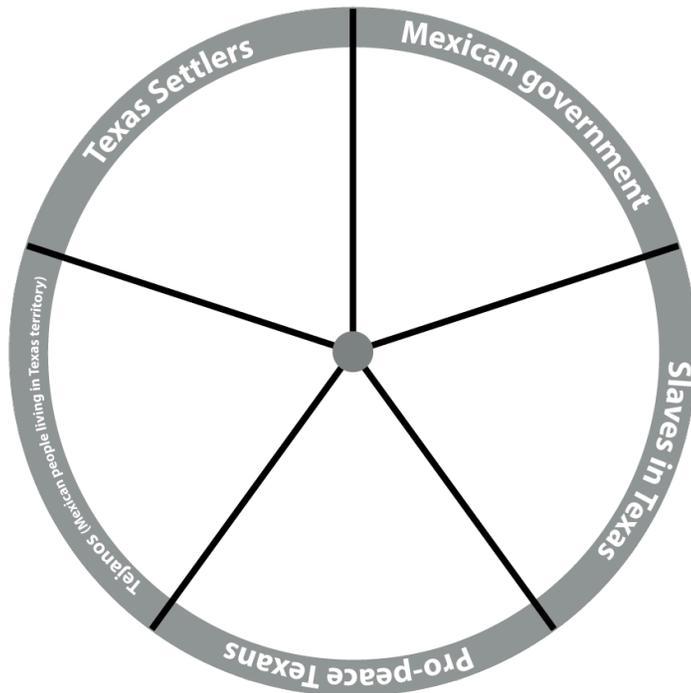
1. Introduce the activity.

2. Explain how students will use the activity.

3. Direct students to work on this activity in their notebook (if the activity involves a graphic organizer, display it and clarify how to complete it).

4. Remind students that graphic organizers and other activities are used to organize the most important information (main ideas) from their lessons.

5. Make time to review students' responses and provide feedback.

Name: _____   Class: _____

Quiz 2: The Texas Revolution, Part 2

Match each definition on the left with the sentence that uses the corresponding vocabulary word on the right. Not all sentences will be used.

_____1. to leave a place with no intention of returning

_____2. to prepare for something difficult or unpleasant

_____3. to all agree on something

_____4. mass killing (execution) of people within a short time

_____5. to attract something or someone

_____6. people killed, wounded, captured, or missing

_____7. a movement in which Texas settlers deserted their farms, homes, and towns to avoid the advancing Mexican forces led by Santa Anna

_____8. to attack continuously with missiles, weapons, etc.

_____9. a formal meeting to discuss and decide on issues of common concern

_____10. to make a solemn promise to do something

a. The Texan army was unprepared for the **advance** by the Mexican troops.

b. The Texans suffered more **casualties** in the battle of the Alamo than the Mexicans.

c. The **controversial** issue of whether to make Texas an independent state was resolved at the Constitution of 1836.

d. In the **Convention** of 1833, the delegates made the same decisions they had made in an earlier convention.

e. The delegates **pledged** to be loyal to Mexico, only if Mexico restored the Constitution of 1824.

f. All night, the Mexican troops **braced** for an attack from the Texas army.

g. The **Runaway Scrape** happened after word spread in Texas about the fall of the Alamo.

h. Mexican cannons **bombarded** the Alamo.

i. After the Alamo, the delegates were **unanimous** in their decision to make Texas independent.

j. Mexican soldiers shot more than 400 Texans during the Goliad **massacre**.

k. The Texas settlers **deserted** their property during the Runaway Scrape.

l. The possibilities of a better life **lured** the empresarios to Texas.

Provide brief answers for each of the following.

1. Think about the causes and battles of the Texas Revolution (Goliad, the Alamo, and San Jacinto). Why did many Texas settlers want independence from Mexico?

2. In what ways did the siege help Santa Anna defeat the Texans at the Battle of the Alamo?

3. When Texas settlers declared independence from Mexico during the Texas Revolution, what did their constitution say about slavery?

4. Think about the Runaway Scrape during the Texas Revolution. How were regular families in Texas affected by the war?

5. What was the result of the Battle of San Jacinto?

CBM Measures from Study I

Measure	Group		Number of Sections	Number of Students (Pre / Post)	Pre-Test		Post-Test	
					Mean	sd	Mean	sd
Comprehension	Control	Non-ELL	8	136 / 137	1.63	1.21	2.33	1.75
		ELL		46 / 45	1.17	1.15	1.93	1.73
	Treatment	Non-ELL	7	114 / 105	1.48	1.31	3.73	2.14
		ELL		50 / 47	1.18	1.17	3.32	2.12
Vocabulary	Control	Non-ELL	8	136 / 137	8.68	4.98	10.49	5.05
		ELL		46 / 45	6.54	4.33	7.27	5.28
	Treatment	Non-ELL	7	114 / 105	9.13	4.85	12.90	4.97
		ELL		50 / 47	6.88	3.68	10.57	5.11

Tests of Random Effects for Study I

CBM Measure	Source	Variance	χ^2	df	P
Comprehension	Students within-Section	2.654			
	Sections within Teacher	0.001	9.67	10	>0.500
	Teachers	0.513	70.95	3	<.001
Vocabulary	Students within-Section	12.675			
	Sections within Teachers	0.993	29.54	10	.001
	Teachers	0.810	12.21	3	.007

Source	Comprehension	ICC	Vocabulary	ICC
Teachers	0.513	.162	0.810	.056
Sections	0.001	<.001	0.993	.069
Students	2.654		12.675	

Tests of Fixed Effects for Study I

		Fixed Effects				
CBM Measure	**Predictor**	**Estimate**	**s.e.**	***t***	***d.f .***	***p***
Comprehension	Intercept	2.28	0.385	5.93	3	<.001
	Pre-Test	0.661	0.063	10.52	306	<.001
	Treatment	1.57	0.109	14.31	13	<.001
Vocabulary	Intercept	9.75	0.856	11.39	3	<.001
	Pre-Test	0.747	0.009	86.49	306	<.001
	Treatment	2.53	0.629	4.026	13	.002

Table Note: Tests of differences between treatment and control conditions on pretest measures of Vocabulary and Comprehension were not statistically significant.

CBM Measures for Study II

Measure	Group		Number of Sections	Number of Students (Pre / Post)	Pre-Test		Post-Test	
					Mean	sd	Mean	sd
Comprehension	Control	Non-ELL	8	154 / 175	0.72	1.00	2.23	2.15
		ELL		39 / 39	0.49	0.96	1.36	1.32
	Treatment	Non-ELL	9	155 / 173	0.83	1.20	3.11	2.45
		ELL		66 / 66	0.80	0.99	3.18	2.54
Vocabulary	Control	Non-ELL	8	154 / 175	7.37	4.97	9.86	5.75
		ELL		39 / 39	5.00	3.24	9.47	5.20
	Treatment	Non-ELL	9	154 / 172	7.71	4.79	11.78	6.42
		ELL		67 / 67	7.61	4.58	12.25	5.77

Tests of Random Effects for Study II

CBM Measure	Variance Component	Estimate	χ^2	df	p
Comprehension	Students within-Section	3.586			
	Sections within Teacher	0.275	35.29	12	.001
	Teachers	0.900	39.00	3	<.001
Vocabulary	Students within-Section	22.056			
	Sections within Teacher	2.269	40.266	12	<.001
	Teachers	3.679	23.61	3	<.001

Source	Comprehension	ICC	Vocabulary	ICC
Teachers	0.90	.189	3.68	.131
Sections	0.28	.058	2.27	.081
Students	3.59		22.06	

Fixed Effects					
CBM Measure	**Predictor**	**Estimate**	**s.e.**	***t***	***d.f.***	***p***
Comprehension	Intercept	2.18	0.431	5.05	3	.008
	Pre-Test	0.596	0.030	19.46	361	<.001
	Treatment	1.09	0.403	2.71	15	.016
Vocabulary	Intercept	10.10	0.771	13.10	3	<.001
	Pre-Test	0.515	0.107	4.82	363	<.001
	Treatment	1.94	0.550	3.53	15	<.003

Table Note: Tests of differences between treatment and control conditions on pretest measures of Vocabulary and Comprehension were not statistically significant.

Effect Size Estimates – Hedges' *g*

Outcome	Study I	Study II
Comprehension	.71	.47
Vocabulary	.49	.36
Comp (ELL)	.71	.83
Vocabulary (ELL)	.63	.49

Effect sizes are computed based on the pooled within group post-test standard deviation (pooling within treatment and ELL status). Effect sizes are larger if based on pre-test standard deviation.

Effect sizes are based on unadjusted means. Effect sizes were larger based on adjusted means.

Conclusions and Limitations

- We found that students in treatment sections improved more from pre-test to post-test than students in control sections.

- Positive effects were observed for both comprehension and vocabulary.

- Effects did not differ for ELL and non-ELL students, i.e., both benefitted from the treatment.

Conclusions and Limitations

- It is worth noting that EL students in the Treatment outperformed non-EL students in the control group in both vocabulary and comprehension at the post-test.

- Teachers were able to implement the treatment in the specified sections and use their typical instruction in their control sections.

- Gains in comprehension and vocabulary did not generalize to the standardize outcome measure.

- The comprehension measure required a written response and may have under-represented student knowledge.

- Both teachers and students need time to learn how to use paired group work effectively.

CREATE