

<http://dx.doi.org/10.4172/2472-1786.100004>

## Infusing the Social Studies with Literacy Practices to Improve Outcomes for Students with Learning Disabilities

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**Received:** October 23, 2015; **Accepted:** October 26, 2015; **Published:** November 03, 2015


This work was supported by the Institute of Education Sciences, U.S. Department of Education, through cooperative agreement R305F100013 and grant R305A150407 to the University of Texas at Austin. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

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It is critical that students possess content knowledge. After all, content knowledge is predictive of reading comprehension among elementary school students [1], middle school students, and high school students [2, 3]. Social studies classes provide a unique opportunity for students with and without learning disabilities (LD) to gain this important content knowledge. Students with LD are frequently included in the general education social studies classrooms [4, 5], and their inclusion poses a unique challenge to teachers. While students with LD benefit from literacy support in social studies in order to develop content knowledge [6], general education social studies teachers view themselves as content area experts and not responsible for literacy instruction [7, 8]. Teacher perception is supported by the types of literacy instruction observed in social studies classrooms, where teachers rarely engage in explicit vocabulary or comprehension instruction [9]. In order for students with LD to meet the demands of upper level content area classrooms, literacy support within the content areas is necessary.

The effects of literacy instruction in social studies have been investigated on several occasions. In a meta-analysis of 16 studies examining the effects of literacy practices provided to students with LD using social studies content [10], the overall mean effect size was 1.02 indicating that literacy practices delivered using social studies content have a substantially positive effect on vocabulary and content knowledge among students with LD. For students in grades three to six, the mean effect size was 0.78, still large. However, for students in grades seven through 12, effect size was 1.22, significantly larger. Interventions included graphic organizers, mnemonics (i.e. using visuals to remember vocabulary

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**Citation:** Swanson E. Infusing the Social Studies with Literacy Practices to Improve Outcomes for Students with Learning Disabilities. *J Child Dev Disord.* 2015, 1:1.

or content), guided notes, and multicomponent interventions. These results indicate that literacy practices delivered within social studies impact outcomes in all grades, and particularly among students in the upper grades.

### Promoting adolescents' comprehension of text (PACT)

Several randomized control trials investigating the effects of PACT—a multicomponent literacy support program—implemented in middle school social studies classes containing students with LD have been conducted [6, 11-14]. A brief description of the intervention will be followed by a description of the research base.

PACT is a content approach to reading that is framed within a text-processing view of comprehension [15, 16]. It focuses on the text as the vehicle for instruction, engaging students in building coherent representations of the ideas presented in text. All PACT materials can be found on the Meadows Center for Preventing Educational Risk website at <http://tinyurl.com/nljko5>. The intervention is divided into 10-day units of study that contain the following five literacy-based components.

**Comprehension canopy:** The comprehension canopy contains

a motivational springboard and a key question that overarches the content learned throughout the unit. The motivational springboard is usually a short video or image that sparks a short discussion and opportunity to build background knowledge. To facilitate the content learning model, throughout the unit, teachers tie the day's new learning back to the overarching comprehension question.

**Essential words:** Approximately five key terms are chosen for explicit instruction and review throughout the unit. These words are considered *Velcro words* in that they are global in use and many words can *stick* onto the knowledge of these key terms. For example, if an essential word is "revolt," students can easily learn the related words like revolution and revolutionize. On the first day of the unit, essential words are explicitly taught using a definition, a visual, examples, non-examples, and an opportunity to use the word when answering a question with a partner. Five-minute review activities that require students to apply knowledge of essential words to unique tasks are provided on a daily basis.

**Knowledge acquisition:** This component requires active engagement in text-based discourse with opportunities to develop critical thinking skills. Students read text with a peer or with teacher support. They stop frequently so that teachers may engage students in discussions that focus students' attention on key information and essential words. Teachers ask open-ended questions that facilitate discussion that takes place in pairs, small groups, or as a whole class. Students also take notes on the key information.

**Team based Learning (TBL) comprehension checks:** Students are placed into heterogeneous groups of approximately 4-6 students to complete the two TBL components of PACT. The first is a knowledge check. During this phase, students complete a short quiz covering key information independently. They turn this copy of the quiz in for a grade then move into groups and re-take the

quiz. This time, the team must agree on the correct answer and identify information from the text to support their selection.

**TBL knowledge application:** On the last day of each unit, students work in their heterogeneous teams to apply their newly learned content of the unit through a problem-solving activity. In one example (**Figure 1**), students are asked to identify the most compelling cause for the Revolutionary War. They begin with eight possible causes. They compare two at each round, identifying the most compelling cause and supporting their choice with text-based information. These competitions continue until only the most compelling cause remains.

### PACT research base

In the first efficacy trial, eighth grade U.S. History teachers implemented PACT over the course of 30 days [12]. Students in the treatment condition outperformed students in the business as usual comparison condition on measures of social studies content knowledge, social studies reading comprehension, and broad reading comprehension. The study was replicated the following year using the same design and procedures [13]. This time, statistically significant effects favoring the treatment condition were detected for content knowledge. These differences were maintained at four and eight-week follow up, indicating that content knowledge was gained after the intervention and was maintained over time. In addition, fidelity to intervention mediated the effect, indicating those students who were assigned to teachers implementing the intervention at higher levels of fidelity scored higher on measures of content knowledge.

In a series of quasi-experimental studies, researchers investigated the impact on students with disabilities who are taught within general education social studies classrooms [9, 14]. Results from these studies indicated that students with disabilities who

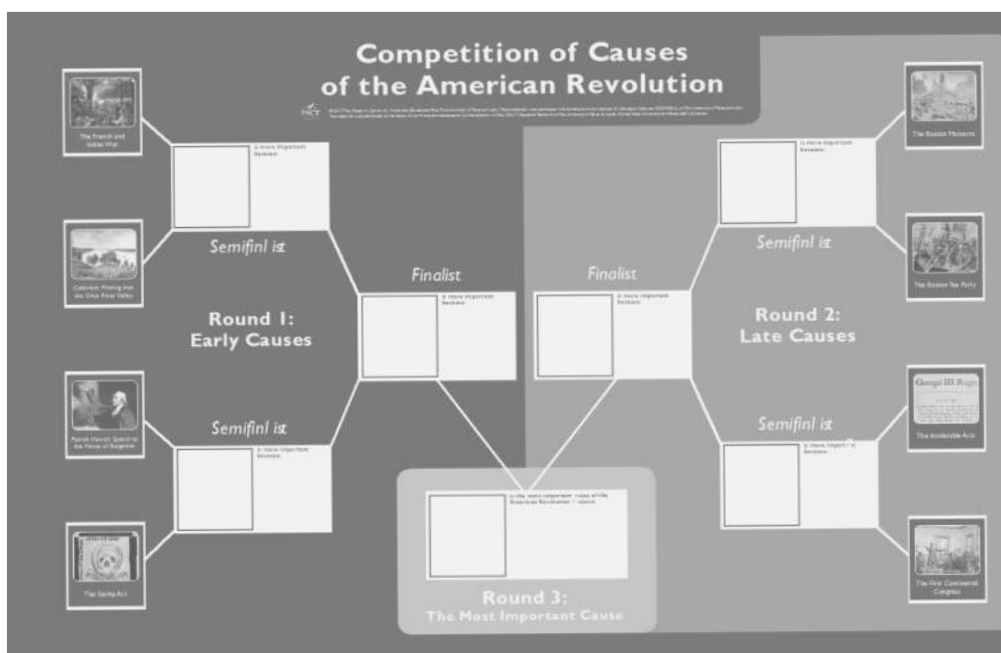


Figure 1 Knowledge Application Example

**Table 1** Effect Sizes from PACT Studies.

Eighth-Grade Efficacy Trials	Content Knowledge Effect Size	Content Reading Comprehension Effect Size	Broad Reading Comprehension Effect Size
Vaughn et al., 2013	0.17*	0.29*	0.20*
Vaughn et al., 2014	0.32*		
4 week follow up	0.29*	0.02	0.01
8 week follow up	0.26*		
Swanson et al., in press	0.35*	0.59*	0.10
Swanson et al., 2015	0.26*	0.34*	0.09
Wanzek et al., in press	0.51*	0.04	0.02
Vaughn et al., in press	0.40*	0.20*	0.12

Note: \* = statistically significant

received PACT outperformed those who did not receive PACT on measures of content knowledge [9, 14] and content reading comprehension [9]. Among eighth grade struggling readers who failed their 7<sup>th</sup> grade state mandated reading test, PACT was implemented across the entire year [11]. For students, differences between students in the treatment and the business as usual comparison group were statistically significant for content knowledge and content reading comprehension (**Table 1**).

Results from this body of studies provide evidence that literacy

practices delivered in the general education social studies classroom are feasible and effective. Fidelity scores were high across all studies, indicating that social studies teachers are able to implement PACT in their classrooms. The intervention enhanced reading comprehension among students with and without disabilities who were instructed in the same classrooms at the same time. As progressive national and state standards continue to focus on literacy instruction in all subject areas, teachers can rest assured that engaging in practices such as these benefit all of their students.

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