

Improving Middle-School Students' Knowledge and Comprehension in Social Studies: A Replication

Vaughn, S., Roberts, G., Swanson, E.A., Wanzek, J., Fall, A.-M., & Stillman-Spisak, S. J. (2015). Improving middle-school students' knowledge and comprehension in social studies: A replication. *Educational Psychology Review*, 27(1), 31–50. <https://doi.org/10.1007/s10648-014-9274-2>

Study Background and Purpose

Middle school content area teachers face a significant curriculum challenge with the implementation of the Common Core State Standards. The standards require that teachers broaden the lens to include reading expository texts and improving comprehension in social studies. To accomplish this goal requires increased emphasis on improving students' understanding and learning from complex texts.

To meet this challenge, **Promoting Adolescents' Comprehension of Text (PACT)** was developed to improve middle school students' content area knowledge and comprehension of content area materials. The research team worked closely with social studies teachers for 2 years to design the evidence-based PACT components:

- **Comprehension Canopy:** An engaging springboard into the lesson
- **Essential Words:** Key vocabulary related to the unit
- **Knowledge Acquisition:** Text-based instruction and reading
- **Team-Based Learning:** Comprehension checks
- **Knowledge Application:** Content knowledge applied to a novel, engaging activity

The purpose of this study was to replicate a study by Vaughn and colleagues (2013) to further validate the research of implementing knowledge acquisition with content area reading practices in a middle school content area setting.

Method and Measures

Before the school year, teachers participated in an intensive 1-day (8-hour) professional development workshop covering implementation of the PACT intervention and study design features related to maintaining a “firewall” between treatment and comparison conditions (because teachers would lead both PACT and comparison classes).

A total of 19 teachers participated in this randomized controlled trial and 1,487 students were randomly assigned to their social studies classes. Each teacher's classes were randomly assigned to either the treatment (PACT) condition or comparison (business as usual) condition. Of the 85 social studies classes, 47 were treatment classes and 38 were comparison classes. In both conditions, teachers taught the same social studies content. Only the PACT classes received the PACT instructional practices.

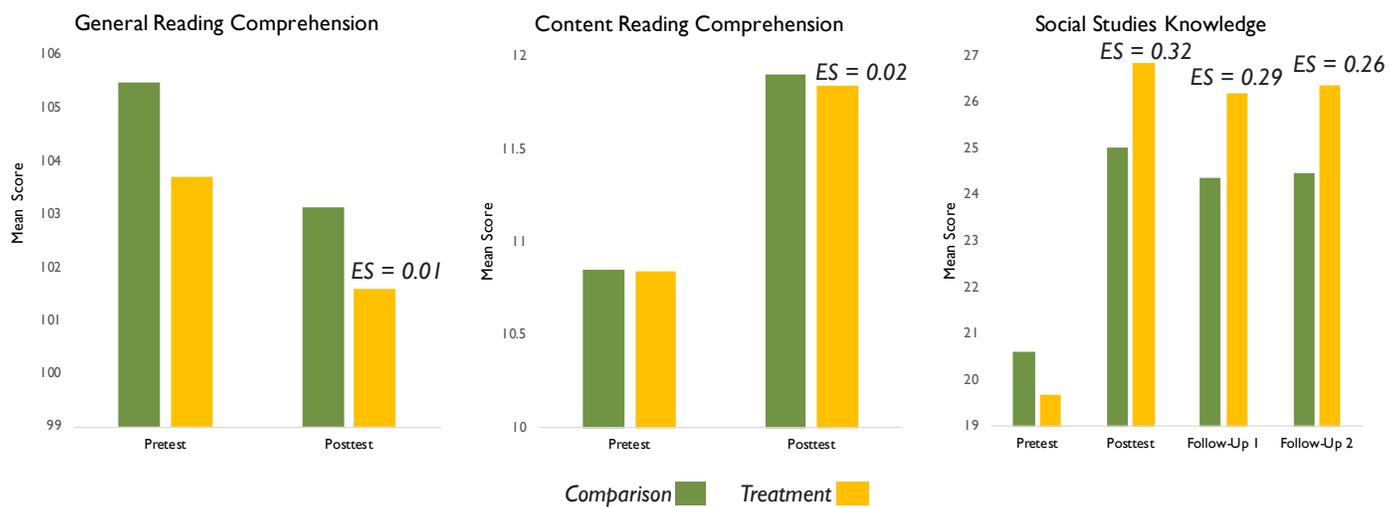
Students in the treatment classes received three PACT instructional units in 10-day cycles that were aligned to the district curriculum map. Teachers received semi-scripted lesson plans and a daily schedule identifying the components to be delivered on each day. Students received all materials. In total, teachers implemented 30 sessions of the intervention, taking between 6 and 10 weeks. In the comparison classes, students worked at the same pace and received the same content using the district-approved curriculum (without PACT practices). In addition to the PACT workshop before the school year, teachers were provided in-class coaching support in their treatment classes.

The study used the following measures for pretests and posttests:

- Gates-MacGinitie Reading Comprehension Subtest: A standardized measure of general reading comprehension
- ASK Reading Comprehension: A reading comprehension measure on intervention topics
- ASK Subject Knowledge: A researcher-developed measure of the social studies knowledge from the intervention

Results

The PACT treatment group outperformed the comparison group on measures of social studies knowledge at the initial posttest, 4-week posttest (follow-up 1), and 8-week posttest (follow-up 2). The additional two posttests were administered to measure students' retention of PACT knowledge. These group differences were statistically significant. This means that the group differences were not due to chance. Instead, they were due to the PACT instructional practices.



Implications for Practice

- PACT implementation can improve student content knowledge in social studies.
- Students who were in the PACT classrooms not only gained more knowledge than the comparison classes, but also retained that knowledge for longer.
- PACT allows the integration of lecture-style teaching, which many teachers prefer. Research suggests that increasing emerging pedagogies in the classroom improves student outcomes.
- Strong instruction in key vocabulary allows for greater understanding of content.
- PACT's team-based learning approaches increase student engagement.
- PACT can help to meet the Common Core State Standards on comprehending expository texts.
- Teachers reported that PACT is a feasible approach to implement in the classroom.
- Training time for a teacher to use PACT is only 6 to 8 hours.

Reference

Vaughn, S., Swanson, E., Roberts, G., Wanzek, J., Stillman-Spisak, S., Solis, M., & Simmons, D. (2013). Improving reading comprehension and social studies knowledge in middle school. *Reading Research Quarterly, 48*(1), 77–93. <https://doi.org/10.1002/rrq.039>

Summary prepared by Blair Payne and Elizabeth Swanson, Ph.D.