

Vaughn, S., Martinez, L. R., Wanzek, J., Roberts, G., Swanson, E., & Fall, A.-M. (2017). Improving content knowledge and comprehension for English language learners: Findings from a randomized control trial. *Journal of Educational Psychology, 109*(1), 22–34. <https://doi.org/10.1037/edu0000069>

Study Background and Purpose

Designing and implementing effective instruction for the growing number of English learners (ELs) in public schools is a significant educational challenge. Despite the increased attention to improving their academic opportunities, ELs continue to demonstrate difficulties beyond the elementary grades. Further, a substantial number of ELs demonstrate “late-emerging” reading difficulties. As the syntax, vocabulary, and background knowledge of texts become more complex in middle school, ELs’ reading difficulties manifest. Research suggests that ELs and below-grade-level readers exhibit many of the same learning challenges in the middle grades and that similar instruction may be necessary for both groups (Lesaux & Kieffer, 2010).

To meet these unique challenges, Vaughn and colleagues modified **Promoting Adolescents’ Comprehension of Text (PACT)**, a package of instructional practices designed to meet the needs of students with reading difficulties in middle school content area classrooms (Vaughn et al., 2013). The following table represents how the original PACT practices were enhanced to fit the needs of ELs in this intervention study.

PACT Practice	Description	Enhancement for ELs
Comprehension Canopy	An engaging springboard into the lesson	New knowledge was supplemented with videos, visuals, and graphic organizers.
Essential Words	Key vocabulary related to the unit	Theme-related vocabulary words were taught across time and activities, integrating oral and written instruction into content learning.
Knowledge Acquisition	Text-based instruction and reading	Informational text reading that included target vocabulary was central to each unit. Essential words were reinforced with additional reading, speaking, and writing activities.
Team-Based Learning	Comprehension checks	ELs had additional opportunities to participate in discussions, write, practice using the vocabulary, and solidify understanding. Students worked in pairs during most components of the lessons. Teams received constant feedback.
Knowledge Application	Content knowledge applied to a novel, engaging activity	Teachers checked in with teams and provided feedback.

Method and Measures

A total of 18 teachers participated in this randomized controlled trial, and 1,629 students were randomly assigned to their social studies classes. Of the participants, 26.7% were current ELs or held an EL designation in the previous 2 years. Each teacher's classes were randomly assigned to either the treatment (PACT) or comparison (business as usual) condition. Across the 94 social studies classes, 49 were treatment classes and 45 were comparison classes. In both conditions, teachers taught the same social studies content. Only the PACT classes received the PACT instructional practices.

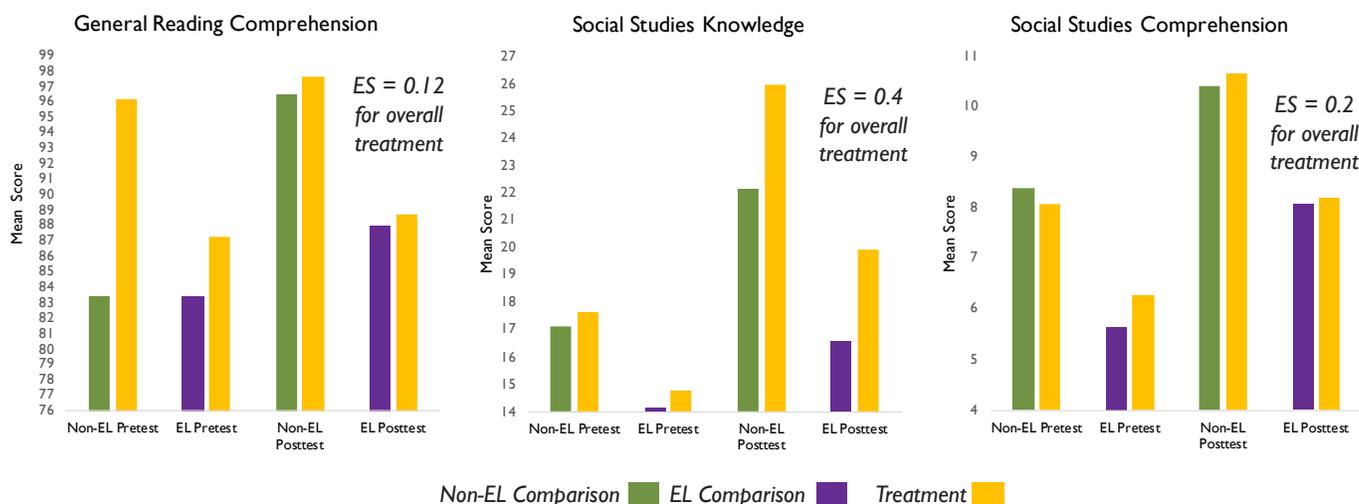
Teachers were trained on the PACT practices before the school year during a 1-day professional development. For approximately 20 weeks, the PACT intervention was delivered in treatment classes during regularly scheduled social studies time. During the first 6 to 8 weeks, three consecutive units were taught in classes. For the next 12 weeks, teachers implemented only the Knowledge Acquisition PACT component three times a week for 15 minutes per session. 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 for the first 6 to 8 weeks.

The study used the following measures for pretests and posttests:

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

Results

Students in the treatment group—both ELs and non-ELs—outperformed students in the comparison group on measures of content knowledge acquisition and content-related reading comprehension at posttest. 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

- The number of ELs in a class matters. As the proportion of ELs in the class increases, additional supports may be necessary for students to succeed in a discourse-based treatment like PACT.
- Both ELs and non-ELs made content-specific gains in the treatment condition.
- Teachers can use the PACT components to support both ELs and students with reading difficulties, thus saving time and resources.
- The enhanced PACT components were highly engaging for students, particularly the team-based learning components.
- Using PACT is an effective way to meet the Common Core State Standards that focus on comprehending and learning content from expository texts.
- Teachers reported that PACT is a feasible approach to implement in the classroom.

References

- Lesaux, N. K., & Kieffer, M. J. (2010). Exploring sources of reading comprehension difficulties among language minority learners and their classmates in early adolescence. *American Educational Research Journal*, 47, 596–632. <https://doi.org/10.3102/0002831209355469>
- Vaughn, S., Swanson, E. A., Roberts, G., Wanzek, J., Stillman-Spisak, S. J., Solis, M., & Simmons, D. (2013). Improving reading comprehension and social studies knowledge in middle school. *Reading Research Quarterly*, 48, 77–93.

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