
Reading Apprenticeship Professional Development in High School History and Biology

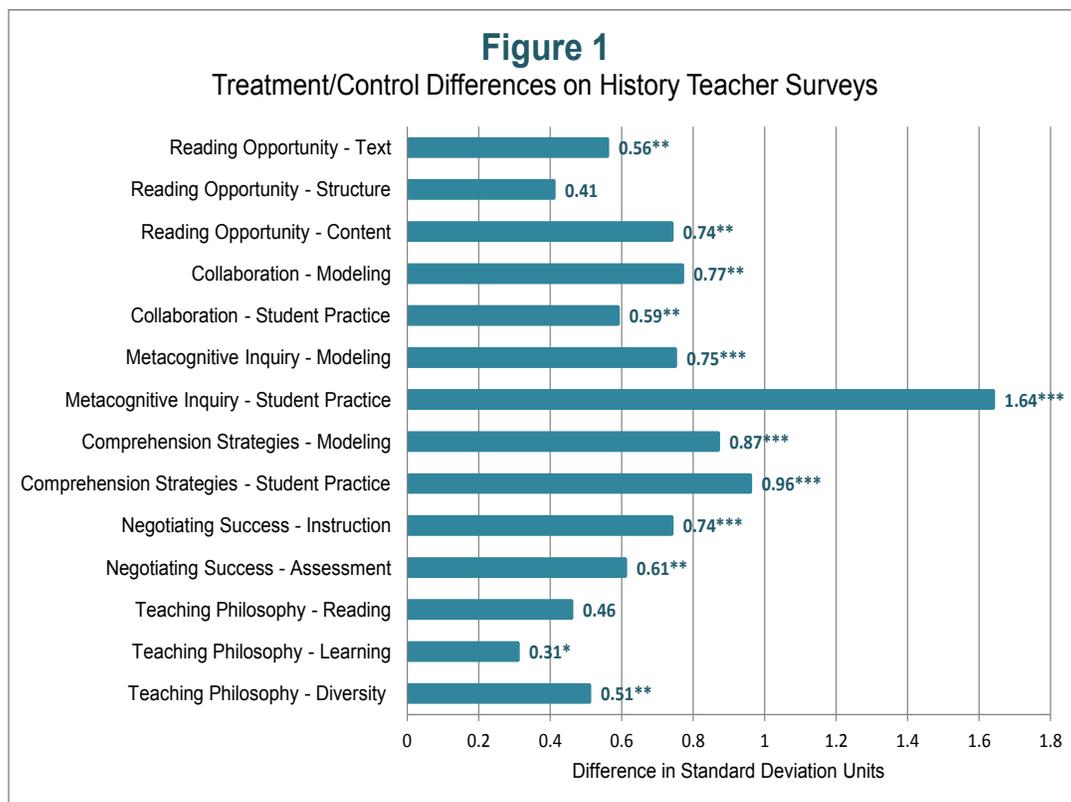
Researchers examined the impact of WestEd’s Reading Apprenticeship teacher professional development on high school U.S. history and biology instruction. The professional development was tailored to the literacy and reasoning practices of the content areas, and its effectiveness for both teacher practice and student learning was evaluated and analyzed by external evaluators from the UCLA CRESST Center. Researchers from WestEd’s Strategic Literacy Initiative and Evaluation Research program contributed to the study design but did not collect or analyze outcome data. The National Center for Education Research, U.S. Department of Education’s Institute of Education Sciences, funded this study.

Treatment: The treatment for this study is 10 days of professional development in Reading Apprenticeship specific to science and history prior to the study’s instructional year. Trained consultants who have been certified through formal training and performance assessment, and have demonstrated expertise in science or history, conducted the professional development. There was ongoing support for treatment teachers via a list serve.

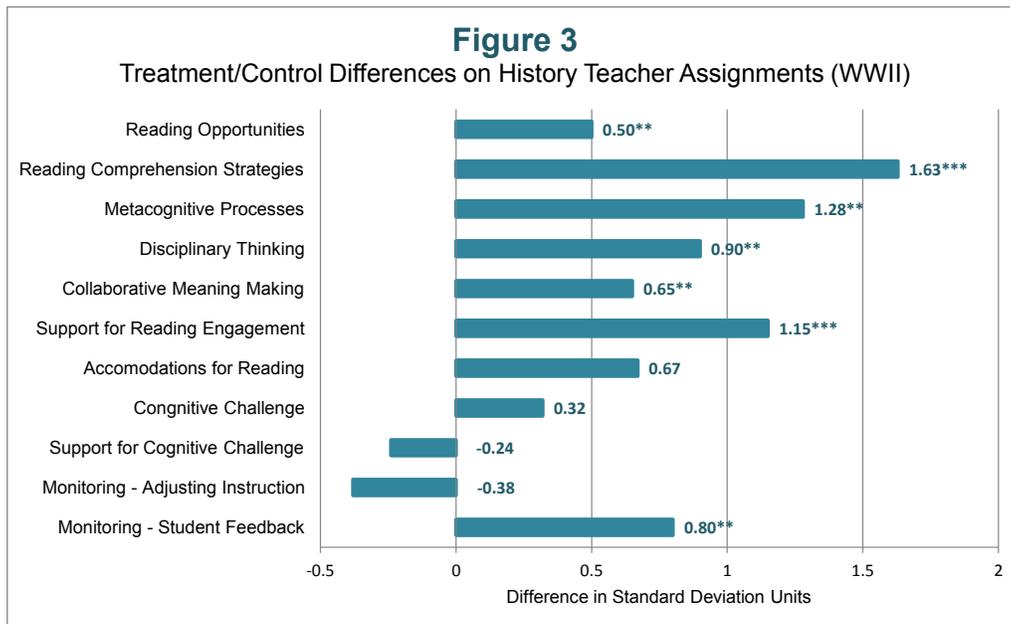
Study: The study was conducted in 99 matched high schools from 46 districts in California and Arizona that serve high proportions of African American, Latino, and English learner students — populations of students historically underrepresented in higher education. One hundred and fifty-nine teachers participated.

Teacher Surveys: We first examined potential nonequivalence between treatment and control teachers by comparing means of the composite scales of both groups assessed by a baseline teacher survey; no statistically significant differences were detected. We then fit regression models, with controls for baseline measures, to estimate post-treatment differences between the two groups.

The resulting differences and large effect sizes suggest that treatment teachers are providing more, and more varied, opportunities to read in class with support; more opportunities for collaborative meaning-making, metacognitive inquiry, and practice of comprehension strategies. Further, treatment teachers report more use of formative assessment to guide instruction and significant shifts in their teaching philosophy.



Teacher Assignments: Assignments were scored according to a rubric designed to rank features of history content and literacy instruction. The estimated differences suggest treatment teachers in this cohort are providing more opportunities to read historical materials, more instruction in comprehension strategies and metacognitive processes, more support for disciplinary thinking, more collaborative learning structures, more support for reading engagement, and more feedback to students about their history reading.



State Standardized Tests: Two types of state standardized test score data were collected—linked, longitudinal test score data for students for whom we had obtained parental consent; and anonymous, unlinked, cross-sectional data for all students in participating classrooms. To enhance the precision of the impact estimates and to account for potential differences in pre-intervention characteristics between groups, the test score analyses controlled for student and teacher characteristics. For the cross-sectional data, which was a more representative sample of the students in the study, history students in treatment schools exhibited higher scores in history (effect size = 0.25), reading comprehension (effect size = 0.22), and English language arts (effect size = 0.26).

