

Teacher Efficacy and Behavior: Their Relationship and Impact on Student Learning
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The purposes of this study were to explore the relationships between teacher efficacy and changes in teacher behavior and student learning espoused by the standards-based reform movement and to examine the impact of a curriculum innovation on student learning and teacher efficacy. The study was designed to target sophisticated pedagogical behaviors associated with setting high learner expectations.

The context for the research was a federally funded project to develop and implement model lessons in elementary social studies in an urban setting. The sample was comprised of 25 experimental and 17 comparison teachers. Instrumentation included two measures of teacher efficacy, two measures of teacher behavior, and three measures of student learning.

Findings in regard to teacher efficacy were very limited. A factor analysis of the Social Studies Teacher Efficacy Scale uncovered a third factor dealing with lack of impact with difficult students that appeared to be distinct from perceptions of general efficacy, but this adapted instrument only accounted for 41% of the variance. No correlations between measures of teacher efficacy and total teacher behaviors on the observation instruments were detected, although inconsistent correlations occurred with some of the sub-categories. Weak to mild negative correlations were found between two of the sub-scales of the subject-specific efficacy measure and two of the measures of student learning. Pre- and post-test scores on efficacy did not change. Findings in regard to the curriculum innovation were more promising. Both teachers and external observers reported a significant increase ($p < .01$) in total behaviors and on four sub-categories related to educational reform expectations. Teachers self-reported higher levels of behaviors than observers. Significant gains ($p < .01$) on all three measures of student learning accrued, but no differences emerged between groups. An examination of the performance of gifted, high, middle, and low achievement students from the experimental sample only showed differences by group and measure.

The study confirmed that the measurement of teacher efficacy is complex and current instrumentation weak. There was evidence that certain dimensions of the construct may be related to specific categories of teacher behavior dealing with reform expectations, but no clear pattern emerged. Although there was tentative evidence that teacher behaviors were positively impacted by the introduction of the new curriculum, these changes appeared too shallow to affect student learning. In spite of incorporating key features from the change literature into the project design, many teachers had difficulty applying these lessons in the classroom and the overall implementation during the pilot phase was limited.