

Efficacy Research Standards

Houghton Mifflin's efficacy studies adhere to the Federal Standard for Scientifically Based Research as specified in the No Child Left Behind Act of 2001. Our studies meet the following scientifically based research criteria:

- Research conducted by an independent third party
- Longitudinal research conducted over several years
- Research that uses a clinical model with control groups (known as “experimental” or “quasi-experimental” design)
- Research that involves sample populations of sufficient size to provide statistical validity to the outcomes
- Research that can be replicated to ensure that results are valid.

The study on students' math performance in California is quasi-experimental, which is one of the most rigorous research methods according to the U.S. Department of Education Office of Educational Research and Improvement (now the Institute for Education Science), which produced the Hierarchy of Evidence research pyramid below. The study on students' math performance in District 9, New York, is a case study. Although the case study is a less rigorous methodology, it corroborates the findings in the quasi-experimental California study. Taken together, the studies show that students in nine school districts in different parts of the country achieved success with *Houghton Mifflin Mathematics*.

