NMPED Science Curriculum Review of Evidence

Curriculum Name: New Mexico Interactive Science, Grades K-5

Publisher: Pearson Education, Inc. publishing as Scott Foresman
Number of Studies Submitted: 1
Number of Studies Reviewed: 1
Grade(s) of Studies Reviewed: 4

Average Rubric Ratings:

Criteria	Average Rating Across All Studies
Experimental Design	1
Sample	1.5
Methodology	2
Measures	1
Studies	0
Reporting Results	1
Investigators	2
Total Score	8.5
Average Subscale Score	1.21

Narrative:
Magnolia Consulting, at the request of Pearson Education which publishes *Interactive Science*, conducted a pilot study. The study used a repeated measures design (pretest / posttest) with a group of treatment students only to evaluate the implementation of two pilot chapters of the fourth-grade program during a 10-week period. The study sample consisted of four teachers in three schools and 140 students across two school districts in two states. To measure students' changes in content knowledge, a custom-developed assessment from NAEP and TIMSS items aligned to the objectives of the pilot chapters was administered twice. A paired samples *t*-test indicated there was a statistically significant increase in student knowledge; the Cohen's *d* statistic indicated a medium effect size. Impact of the program on various subgroups of students indicated all groups of students increased their understanding of key Earth and physical science concepts through use of the *Interactive Science* materials.

Teachers completed online implementation logs, were observed in the classroom, and interviewed. Besides the content assessment, all students completed a pre/post attitude survey and some students participated in focus group interviews.

Overall Quantity and Quality of Evidence:
The only study submitted for review provides evidence for the effectiveness of the science program. The sample size is limited with little differences in participant characteristics. Disaggregated scores are recorded only for gender, special education, and ELL status with small N-values for the last two categories. Disaggregated scores are not available for ethnicity. Content measures, classroom observation protocols, and interview and focus group questions were not provided with the study. Based on this study, there is promising evidence of program efficacy for *New Mexico Interactive Science, Grades K-5*.

References of Submitted Studies:
Magnolia Consulting (September 2010). A Pilot Study of Two Chapters of Pearson's *Interactive Science* Program. The report can be downloaded from:
http://assets.pearsonschool.com/asset_mgr/current/20113/Interactive_Science_Pilot_report.pdf