

1

Contributions of Middle Grade Students to the Validation Process of a National Science Assessment Study

Linda Morell

*University of California, Berkeley
Berkeley, California*

ABSTRACT

This study used a national validity project to investigate specific research questions regarding the intersections among aspects of validity, educational measurement, and cognitive theory. Validity evidence was collected through traditional paper and pencil tests, surveys, think-alouds, and exit interviews of fifth and sixth grade students, as well as interviews with teachers and science experts. Eight teachers, four science experts, and 230 middle grade students participated in the study. Results of the study suggest that fifth and sixth grade students can contribute to the validity argument beyond the role of a test-taker. Evidence supports the claim that fifth and sixth grade students can accurately determine both the difficulty [$r(12) = .886, p < .000$] and fairness [$r(12) = .615, p = .033$] of test items. Evidence suggests that students can identify content taught in class but not covered on the test [$kappa.c(32) = .773, p < .000$].