

## Validity of Accommodations for ELL students with Disabilities in Mathematics and English Proficiency Content Assessment

This project addressed the needs of states to identify effective and valid accommodations for English language learners (ELLs) and students with disabilities (SWDs) in an effort to provide reliable and valid assessment of English language proficiency as required by Title III and to fairly assess all students in mathematics as required by Title I of the No Child Left Behind (NCLB) Act. The project also provides information on the effectiveness and validity of accommodations for future national and state assessments for ELL students with disabilities (ELLWDs), a group of students that received limited attention yet faces the dual challenges of limited English proficiency and individual disabilities.

This study examined the validity of accommodations in two ways: 1) comparing the performance of accommodated non-ELL/non-SWD students with non-accommodated non-ELL/non-SWD students for whom accommodations are not intended, and 2) comparing the criterion-related validity of accommodated and non-accommodated assessment using structural equation modeling and multiple regression approaches.

A total number of 2,675 students were tested in the following six states: 1) California (Los Angeles Unified School District), 2) Kentucky, 3) New Mexico, 4) Oklahoma, 5) Oregon and 6) Virginia. Of this number, 555 (20.8%) students were in grade four, 521 (19.5%) in grade five, 458 (17.1%) in grade seven, 711 (26.6%) in grade eight, 232 (8.7%) in grade eleven and 196 (7.3%) in grade 12. Over forty seven percent of the students were female. Most of the students in the sample were recipients of free-reduced price lunch program (80.6%). Over 67% of the students were Latinos, 24.1% were Caucasian and 8.4% were African Americans. Of the total sample, 401 or 15% had some forms of disabilities. Due to our emphasis on the ELL population representation, over 47% of the sampled students were ELL students.

Students were assessed in mathematics and on the English Language Development Assessment (ELDA) using the reading and writing subscales. Listening and speaking subscales of the ELDA were not included due to testing time limitations and logistical issues. In addition to mathematics and ELDA test data, background information from students, teachers and schools were also collected. To examine the validity of accommodated assessment using external criteria, data were obtained on students' test scores from state assessments through a Class Rosters prepared by teachers of selected classes. Background data from students, teachers and schools were used to control for sources of extraneous variables.

The results of the study shed light on the effectiveness of accommodations in reducing the performance gap between ELLs, SWDs, and ELLs with disabilities (ELLWD) on one hand and non-ELL/non-SWD students on the other hand. The data also helped establish the validity of the accommodated assessments as compared with the non-accommodated assessments. The results of this study suggested that most of the state-approved accommodations used in this study produced valid assessment outcomes. That is, these accommodations did not change the construct being measured. Therefore, findings of this study should be useful in state's decisions concerning the continued use of accommodations from the state-approved list of accommodations for the three subgroups included in the study (ELLs, SWDs, and ELLWDs).

*(Validity of Accommodations for ELL students with Disabilities in Mathematics and English Proficiency Content Assessment, continued)*

The results of effectiveness studies showed a trend of increased student performance under the accommodated assessments. However, due to the small sample size, the effectiveness of none of the accommodations used in this study reached a level of statistical significance. Nonetheless, the results of our validity studies clearly suggested that the accommodations used did not compromise the validity of assessment. The results of multiple group confirmatory factor analyses as well as the findings of multiple regression using external criteria also confirmed that the provision of accommodation did not affect the validity of the assessments.

Our experience in conducting this study suggested that there are substantial challenges for comprehensive studies focusing on the assessment and accommodations for the three subgroups of special needs students (ELLs, SWDs, and ELLWDs) who lag far behind their peers. The goal of this study which included multiple sites from many locations nationwide was to have a nationally representative and large enough subjects to have power in testing effectiveness and validity of accommodations particularly for students in the low incident disability categories. However, in spite of the best efforts by the project team, it proved to be extremely difficult to secure enough testing sites to provide sufficient data for a careful and comprehensive review of accommodation issues. Given the logistical difficulty, the outcome of this study provided evidence suggesting that many of the state-supported accommodations do not alter the construct being measured. Therefore, their use in the state assessment and accountability systems can be permitted. The findings of this study reveal the methodological issues in the assessment and accountability of special needs student population and point to the need for more attention to accommodation issues for these students.

The results of this study also reaffirmed the need of multiple indicators of student performance and the usefulness of obtaining relevant background variables. Such information helps to present a more comprehensive view of assessment and accountability requirements for these students.

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