

Purpose of the Study

The study was designed to ascertain whether the multiple-choice items and essay questions used in a CXC examination were valid measures of the subject dimensions they were constructed to measure.

Methodology and Analysis

Multiple-choice and essay tests were used from three CXC examinations held in 1983. These were Mathematics, Basic Proficiency; Principles of Business, General Proficiency; and History, General Proficiency.

One hundred and fifty content specialists, 50 for each examination, were used to reassign each multiple-choice item and each unit of essay question as measures of the respective subject dimensions. The results were used to probe the content validity of CXC tests by analyzing the extent to which content specialists assigned items and units of questions as measures of the same dimensions to which they had been assigned by CXC test constructors.

Subject dimension scores from a total of 488 candidates in the three examinations were used to develop multitrait-multimethod matrices which were analyzed to probe the extent of convergent and discriminant validity of CXC multiple-choice and essay tests as measures of subject dimensions.

Conclusions

The main conclusions were:

1. Subgroups of multiple-choice items used by CXC as measures of subject dimensions tended to have a moderate degree of content validity as measures of those dimensions.
2. Those units of essay questions which CXC used as measures of a single dimension tended to have adequate content validity as measures of the respective dimensions.
3. Only in a few instances did CXC multiple-choice and essay measures of the same dimensions have satisfactory construct validity as measures of the same abilities.
4. The extent of construct validity of CXC multiple-choice and essay tests can be improved by using content specialists to assign items and questions as measures of subject dimensions.