

United Airlines: Development and Validation of a Pre-employment Test Battery for Five Customer Contact Positions

Project Date: October 1996 – December 1997

Description

United Airlines contracted with PDRI to develop and criterion-validate a pre-employment test battery for screening applicants for five key customer contact positions: Air Freight Representations, Cargo Sales and Service Representations, Customer Service Representatives, Flight Attendants, and Reservation Sales and Service Representatives. The test battery needed to assess both the cognitive and non-cognitive skills and abilities identified as important for job success via a thorough job analysis.

A six-step approach was implemented for this project: (1) conducting a job analysis, (2) developing predictors, (3) developing criterion measures, (4) administering predictor and criterion measures, (5) conducting validation and fairness analyses, and (6) implementation.

Special care was taken in the predictor development stages to ensure that the test battery was as face valid as possible, and to minimize the adverse impact of the selection battery. To address the former, we used United Airlines training and other job materials as starting points in the development of cognitive tests. To assist in the reduction of adverse impact, we took several steps. The first was to ensure that all test items were as race and gender neutral as possible. However, given that the assessment of cognitive abilities (e.g., reading comprehension) consistently produces relatively high levels of adverse impact, we also included noncognitive measures, as they consistently produce much lower levels. Certainly, the assessment of noncognitive abilities were highly appropriate for these jobs, with their interpersonal, dependability, and other noncognitive requirements.

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The job analysis results suggested that the five jobs were similar enough to consider developing one test battery, with the assumption that some parts of it might only validate and thus be scored for a subset of the five jobs. This did indeed turn out to be the case. One cognitive test was selected from several that were included in the criterion-related validation study, to be used for all five jobs, and a different set of noncognitive measures was selected for each job, namely those yielding the highest validity.

A concurrent validity study was conducted, using incumbents with relatively short tenure with United Airlines. Specially-developed behaviorally-anchored rating scales were developed and were completed by the supervisors of those incumbents tested. Separate validity analyses were conducted for each of the five different positions, yielding five different predictor equations.

Once the appropriate selection battery was chosen for each job, and the appropriate cut scores were set, implementation manuals were prepared, with scoring and interpretation instructions.