

open-ended manner—where the test taker writes in a response—reduce differences in test scores between blacks and whites by 39% while producing equivalent levels of validity, compared with traditional multiple-choice tests. Evidence suggests that open-ended tests reduce group differences because they generate more positive reactions from minority test takers (minority test takers are more likely to see open-ended tests as fair and are more motivated to do well on them). Second, some research suggests the negative effects of cognitive ability testing on diversity can be mitigated by recruiting—by targeted recruiting not only for diversity but also for cognitive ability and personality (e.g., by announcing in recruiting materials that one is looking for smart, diverse, and conscientious applicants).⁴¹ Finally, some evidence suggests that the gap in test scores between whites and blacks is narrowing, perhaps by as much as 10%. Though controversy exists over this issue, if it is true, it would mean that future employers may still face a validity-diversity trade-off, but one that is less severe.⁴²

Another aspect of using cognitive ability tests in selection is concern over applicant reactions. Research on how applicants react to cognitive ability tests is scant and somewhat mixed. One study suggested that 88% of applicants for managerial positions perceived the Wonderlic as job related.⁴³ Another study, however, demonstrated that applicants thought companies had little need for information obtained from a cognitive ability test.⁴⁴ Perhaps one explanation for these conflicting findings is the nature of the test. One study characterized eight cognitive ability tests as either concrete (vocabulary, mathematical word problems) or abstract (letter sets, quantitative comparisons) and found that concrete cognitive ability test items were viewed as job related while abstract test items were not.⁴⁵ Thus, while applicants may have mixed reactions to cognitive ability tests, concrete items are less likely to be objectionable. In general, applicants perceive cognitive ability tests to be more valid than personality tests but less valid than interviews or work samples.⁴⁶

Conclusion. In sum, cognitive ability tests are one of the most valid selection measures across jobs; they also predict both learning and training success and retention.⁴⁷ But they also have some troubling side effects, notably that applicants aren't wild about the tests and that the tests have substantial adverse impact against minorities.

A survey of 703 members of the main professional association in which cognitive ability tests are used generated some interesting findings. Among the experts, there were several areas of consensus:⁴⁸

1. Cognitive ability is measured reasonably well by standardized tests.
2. General cognitive ability will become increasingly important in selection as jobs become more complex.
3. The predictive validity of cognitive ability tests depends on how performance is defined and measured.