

# Validity Evidence for a Shortened ACT® WorkKeys® Essential Skills Assessment

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When developing ACT® WorkKeys® Essential Skills (to replace ACT® Tessera™ Workforce), ACT needed to balance stakeholder feedback with psychometric concerns. ACT Tessera Workforce was a multitrait multimethod assessment that measured six essential skills—work ethic, collaboration, resilience, creativity, leadership, and integrity. It employed three item types—Likert items, situational judgment tests (SJTs), and forced choice items. One important piece of information ACT gathered from the market was the need for a brief assessment—one much shorter than ACT Tessera. Significantly shortening an assessment, however, can be detrimental to its reliability and validity.

The assessment item pool was reduced as follows:

- The number of Likert items was reduced from eight per skill to six per skill (i.e., from a total of 48 to a total of 36).
- The number of SJTs was reduced from four per skill to two per skill (i.e., from a total of 24 to a total of 12). Additionally, the number of possible responses to each scenario was reduced from five to three.
- The 20-triad forced choice portion of the assessment was eliminated.

We tested whether the shortened assessment maintained robust construct validity evidence (which indicates whether a measure is associated with similar measures and not associated with dissimilar measures) in a sample of 1,768 working adults, and we found the following:

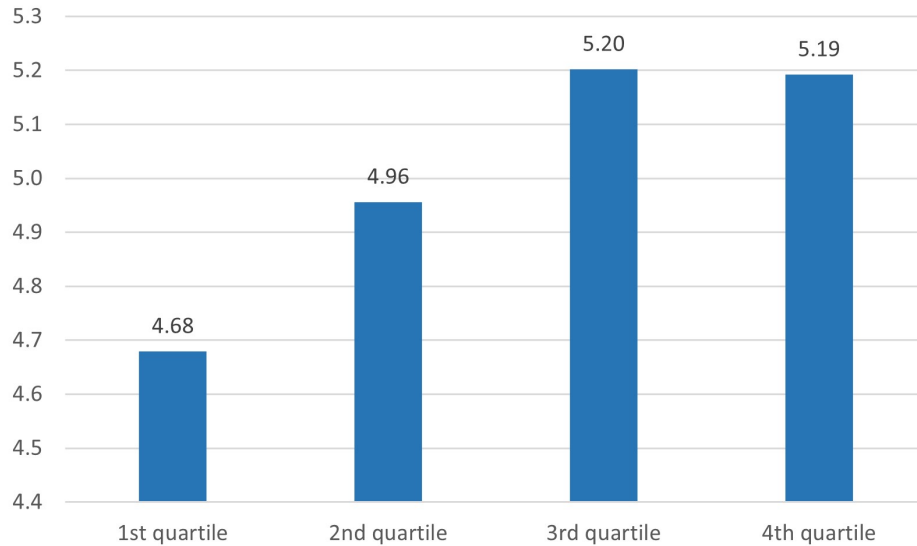
- Correlations between the WorkKeys Essential Skills constructs and their counterparts on the Big Five Inventory (Rammstedt & John, 2007) and HEXACO (Lee & Ashton, 2018) measures ranged from .50 to .80 ( $M = .62$ ), demonstrating that WorkKeys Essential Skills measures the intended constructs. Discriminant correlations averaged .30.

In a second sample of workers ( $N = 173$ ), we tested whether the assessment had test-criterion validity, which indicates whether a measure is related to relevant outcomes. We examined associations between supervisor-rated employee performance and essential skills and found the following:

- The six essential skills significantly predicted supervisor ratings of employee performance, accounting for 14% of the variance in overall performance.

- As expected given previous literature (e.g., Barrick et al., 2001), work ethic was the skill most strongly related to performance. Figure 1 illustrates how individuals with lower levels of work ethic have poorer supervisor ratings.

**Figure 1.** Supervisor-Rated Performance Scores by Work Ethic Quartiles



*Note.* Possible scores range from 1 to 6, with higher scores indicating better performance.

In conclusion, we reduced the length of the WorkKeys Essential Skills assessment drastically, yet the shortened assessment still demonstrates strong evidence of construct and test-criterion validity.

## References

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- Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41(1), 203–212. <https://doi.org/10.1016/j.jrp.2006.02.001>



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