Analysis Background

The appropriate statistical test to examine the relationship between WorkKeys and TABE is a correlation coefficient

- Correlations range from 0.00 (no relationship) to 1.00 (perfect relationship)
  - Note: Correlations can also be negative (high values on one variable correspond to lower values on another, see video game example below)
- The table below is provided to orient the reader to the strength of different correlation coefficients

Strength of the relationship between…	And…	Correlation
Weight (U.S. Adults)	Height	0.42
Education	Income	0.33
Time Spent Playing Video Games	Grades	-0.25
ACT Composite	SAT Composite	0.91

Data

- TABE has several different versions and the current approved versions are TABE 11 and TABE 12
  - There were several students in the original dataset with scores on TABE 9 and TABE 10. These students were not used in this analysis.
- The final dataset only includes students with all information on both TABE 11 (or TABE 12) and WorkKeys
  - A few students were removed from the dataset because they only had 2 out of 3 TABE tests (e.g., English and Reading but not Math)
- I also removed about 50 rows of data because of students with the same name; I could not merge ACT data and MCCB data correctly because I might have mismatched the data for those with the same name
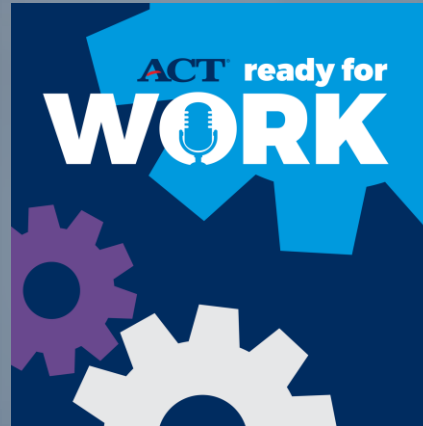
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	Applied Math	Graphic Literacy	Workplace Documents
T11 Language	0.49	0.54	0.57
T11 Reading	0.50	0.55	0.59
T11 Math	0.55	0.49	0.38
T12 Language	0.54	0.58	0.60
T12 Reading	0.55	0.60	0.65
T12 Math	0.58	0.56	0.44

Results

- Values in table represent correlation coefficients described in Slide 3
  - All correlations in the table are statistically significant

- Sample Sizes
  - TABE 11 = 1,409
  - TABE 12 = 1,512

Summary

- Correlation Results
  - The relationships between TABE and WorkKeys in the previous slide are very strong (i.e., students who score well on TABE also score well on WorkKeys)
    - The relationships are not as strong as the one between the ACT and SAT. I think this means that TABE and WorkKeys measure similar traits and abilities but not the exact same ones like ACT and SAT.
  - The results on the previous slide also show meaningful differentiation between the sub tests. For example, the relationship between the Tabe 12 Math test is stronger with the WorkKeys Applied Math assessment and the WorkKeys Graphic Literacy assessment, which requires basic numeracy, than with the WorkKeys Workplace Documents assessment which requires reading.

- I think the sample correlations on Slide 3 provide a meaningful reference point for explaining these results
  - For instance, "The relationship between WorkKeys scores and TABE scores is almost twice the size of the relationship between education and income."

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Episode 30 of ACT's Ready for Work podcast features ACT's latest WorkKeys Adult Ed alignment study

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Examining the Relationship Between WorkKeys and the Test of Adult Basic Education (TABE)

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