

Do Reading Passages About War Provide Factorially Invariant Scores for Men and Women?

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In this study, we investigated the factorial invariance of male and female student scores when reading comprehension was assessed with narrative and expository passages. The expository passage concerned the Civil War and was of special interest because item bias research has suggested that war and military content disadvantage women. Confirmatory factor analysis was used to assess the fit of the data for both genders to several factor models, and then to investigate several levels of invariance. Fit indexes supported measurement invariance across the genders for narrative and expository scores. Specifically, the narrative and expository item factor loadings and intercepts were invariant for both genders. In addition, invariance across both genders was shown for the expository factor variances and means. These results support the continued use of passages about war for reading comprehension assessments. However, further research with different reading assessments and factorial structures needs to verify these results as well as to investigate the differences across the genders for most narrative item error variances.

Perhaps because test scores often contradict the female superiority over men for school grades, test scores have frequently been accused of bias against women (Willingham & Cole, 1997). Bias is a crucial issue not only for fairness but also because it threatens the comparability of test scores for men and women. If test scores are not comparable for both genders, then decisions about college admissions, employment selection, and achievement levels could be inaccurate. Willingham et al. (1988) recommended three ways to evaluate the comparability of test scores:
