

Notes and Corrections to the Text

Part 1: Multiple Regression

Chapter 1: Introduction: Simple (Bivariate) Regression

Page 8: FDIST function in Excel. Note that this is FDIST, not F.DIST. If your version of Excel does not include FDIST (it is an older function), use F.DIST.RT.

Page 12: Likewise, if TDIST is not available you can use T.DIST.2T for a two-tailed t distribution, or T.DIST.RT for a one-tailed distribution.

Page 13: Confidence intervals. I said: “The 95% confidence interval is also shown in Figure 1.7 (.809 to 3.171) and may be interpreted as “there is a 95% chance that the true (but unknown) regression coefficient is somewhere within the range .809 to 3.171” or, perhaps more accurately, “if we were to conduct this study 100 times, 95 times out of 100 the b would be within the range .809 to 3.171.””

Neither of these are particularly good interpretations. A better interpretation, based on the assumption that the CI we calculated provides “a range of plausible values” for the regression coefficient (Cumming & Finch, 2005, p. 174) is “we can be 95% confident that the CI of .809 to 3.171 includes the actual (population) value of b ”. Another alternative is “If we were to conduct this study and compute CIs repeatedly, around 95% of those CIs should include the true value of the regression coefficient” (adapted from Cumming & Finch, 2005, pp. 174-175; see also Cumming, Fidler, Kalinowski, & Lai, 2012)

See the note in supplemental materials (Chapter 1: Confidence Intervals) for some more information about this topic.

Chapter 5: Three Types of Multiple Regression

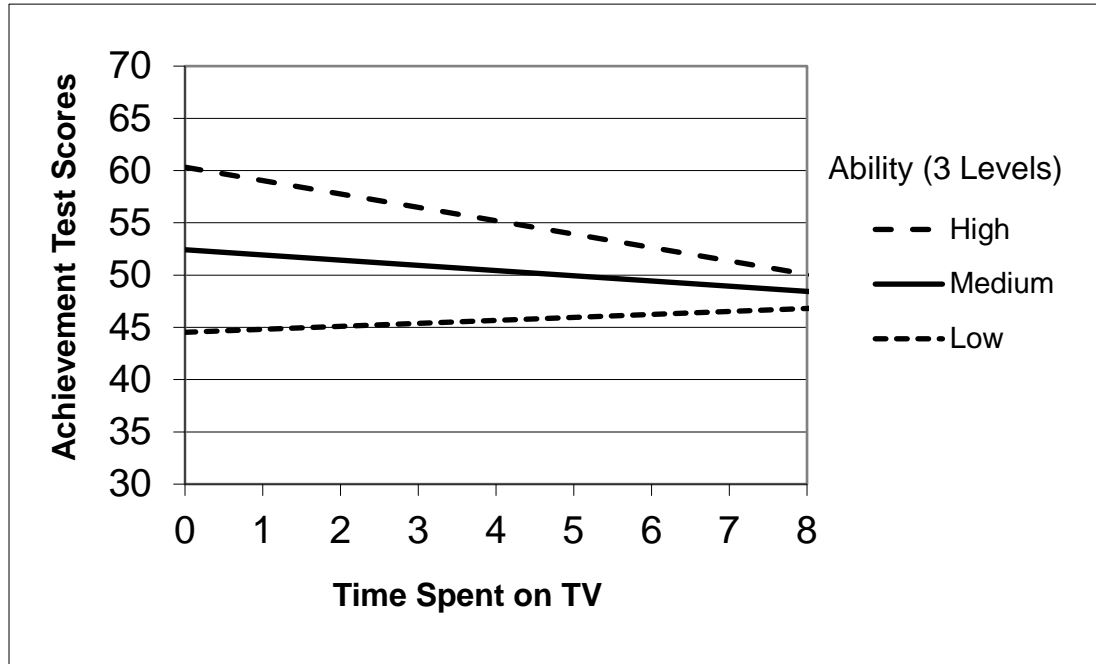
Page 82: The N in the formulae at the bottom of the page should be 887, not 888. That is, the second line in the formulae should be:

$$= \frac{.339 - .333/1}{(1 - .339)/(887 - 4 - 1)}$$

Chapter 8: Continuous Variables: Interactions and Curves

Page 166:

When I created this graph from the formulae I forgot to take into account the centered nature of the TV Time variable. Here is the corrected graph:



Page 170: I left out one of conditions for an informal evaluation of mediation (the first list on the top of p. 170). This section should read (changes are underlined)

1. In a regression of Outcome on Influence (using the labels from Figure 8.9), the effect of Influence on Outcome is statistically significant. This regression does not include the mediating variable.
2. The regression of the Mediator on the Influence results in a statistically significant effect.
3. The regression of Outcome on both Influence and the Mediator results in:
 - a) a statistically significant effect for the Mediator on the Outcome, controlling for the Influence, and
 - b) a reduction in the effect of Influence from step 1. In other words, the effect represented by path c in Figure 8.9 is smaller than would be the effect without the Mediator in the regression.

Chapter 10: Related Methods: Logistic Regression and Multilevel Modeling

Page 222, near the top of the page, current text: "In contrast, the odds of being optimistic for the highest value of Religious (1.59) are .655/.345 or 1.90." This is based on the wrong row of Figure 10.7. The sentence should read: "In contrast, the odds of being optimistic for the highest value of Religious (1.59) are .812/.188 or 4.32."

Part 2: Beyond Multiple Regression: Structural Equation Modeling

Chapter 11: Path Modeling: Structural Equation Modeling with Measured Variables

Page 245: the equation for b should be: $b = \frac{r_{13} - r_{12}r_{23}}{1 - r_{12}^2}$. The equation for b on p. 266 is correct.

General note concerning SEM results (Chapter 14 and beyond):

Different SEM programs will give slightly different results. If you compare the output of the same model in Amos and Mplus you will see minor differences in model fits and parameter estimates. Other programs may show still different results. This is noted parenthetically in Exercise 1, chapter 13, and in the section “Differences Across Programs” Chapter 21, p. 532. These minor differences are generally not errors on your part or my part. “The differences should be minor, however, especially with large samples. If you get substantially different results, double-check your analyses, because one of us is in error!” (p. 532). And if you see substantial differences, please let me know!

Chapter 15: Confirmatory Factor Analysis I

Page 356: A little below the center of the page, the calculation of the degrees of freedom is not correct. It should be $\frac{4x(4+1)}{2} = 10$

Chapter 18: Latent Means in SEM

Page 434, calculation of degrees of freedom: There are 5 paths and 9 factor loadings. The rest of the information is correct, as are the degrees of freedom.

Chapter 20: Latent Growth Models

Page 512, Exercise 2. The text for part b reads: “You may need to constrain the error variances for Adol1 and Adol3 to zero (to avoid negative values). What happens to the fit of this model? (These constraints will not be needed for the conditional model with explanatory variables.)” It should read: “You may need to constrain the error variance for Adol1 to zero (to avoid a negative value). What happens to the fit of this model? (This constraint will also be needed for the conditional model with explanatory variables.)”