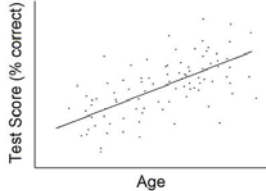
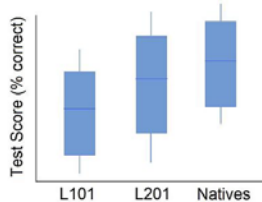
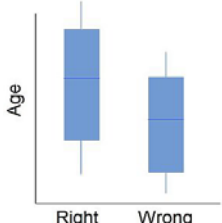
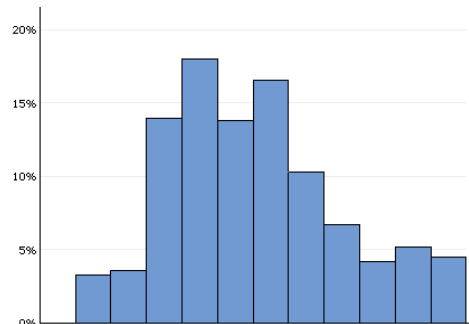


Basic Analyses (assume Independent Observations, Total N = number of subjects)

		IV																													
		Scale	Nominal	Multiple IV's																											
DV	Scale (Normal)	<p>Correlation, Regression</p> 	<p>T-test (2 groups) ANOVA (>2 groups)</p> 	<p>2-way ANOVA, ANCOVA, Multiple Regression (General Linear Models)</p>																											
	Nominal	<p>Switch IV/DV to do ANOVA, T-test</p> 	<p>Chi-square Test Fisher's Exact Test (for small cell counts)</p> <table border="1" data-bbox="706 682 1096 871"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Question #1</th> <th></th> </tr> <tr> <th colspan="2"></th> <th>Right</th> <th>Wrong</th> <th></th> </tr> </thead> <tbody> <tr> <th>L101</th> <td>20 (33%)</td> <td>40</td> <td>60</td> </tr> <tr> <th>L202</th> <td>30 (75%)</td> <td>10</td> <td>40</td> </tr> <tr> <th>Natives</th> <td>40 (80%)</td> <td>10</td> <td>50</td> </tr> <tr> <td colspan="2"></td> <td>90</td> <td>60</td> <td>150</td> </tr> </tbody> </table>			Question #1					Right	Wrong		L101	20 (33%)	40	60	L202	30 (75%)	10	40	Natives	40 (80%)	10	50			90	60	150	<p>Binary (or Multinomial) Logistic Regression (Generalized Linear Models)</p>
			Question #1																												
		Right	Wrong																												
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Natives	40 (80%)	10	50																												
		90	60	150																											
Multiple Scale DV's (Normal)	<p>MANOVA</p>	<p>Arrows from the Scale and Nominal rows point to MANOVA.</p>																													

What if Scale DV is NOT Normally distributed?

- How bad is it? If not too skewed (<1 or 2) and/or large enough sample size (>50), might be okay.
- One option is to create groups ("high" vs "low") if appropriate and needed
- Nonparametric tests are available, similar to above, for t-test & ANOVA without Normality assumption.



What if data are NOT Independent observations? Need analysis for **Correlated data**:

		IV																							
		Scale	Nominal	Multiple IV's																					
DV	Scale (Normal)	<p>General Linear Mixed Models (Repeated & Random effects)</p>	<p>Paired T-test (ex: pre/post) Repeated measures ANOVA (>2 measures)</p>	<p>General Linear Mixed Models (Repeated & Random effects)</p>																					
	Nominal	<p>Switch IV/DV to do ANOVA, T-test Or Repeated Measures Logistic Regression (Generalized Linear Mixed Models) (GEE)</p>	<p>McNemar's Test (paired binary)</p> <table border="1" data-bbox="706 1701 1096 1911"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Q #1</th> <th></th> </tr> <tr> <th>Q #2</th> <th>Right</th> <th>Wrong</th> <th></th> </tr> </thead> <tbody> <tr> <th>Right</th> <td>60</td> <td>50</td> <td>110 (73%)</td> </tr> <tr> <th>Wrong</th> <td>20</td> <td>20</td> <td>40</td> </tr> <tr> <td colspan="2"></td> <td>80 (53%)</td> <td>70</td> <td>150</td> </tr> </tbody> </table>			Q #1			Q #2	Right	Wrong		Right	60	50	110 (73%)	Wrong	20	20	40			80 (53%)	70	150
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