Chapter 17: Which test should I use?

Full answers to study questions

Full explanations for each of these answers are given in the online resources.

1. Correlation, possibly linear regression

    There are two continuous variables: hours of exposure to violent media and sleep quality. If you simply look at the relationship between the two variables, then you use a Pearson's correlation. If you wanted to predict sleep quality, then you would use a linear regression with exposure to violent media as the predictor variable and sleep quality as the outcome variable.

2. Independent *t* test

    The study has a quasi-experimental design. The IV is whether the participant has dyslexia or whether they are a control participant. There are two separate groups of participants, making this an independent measures design. The DV is their percentage accuracy on a test of visuo-spatial processing. Therefore the data can be analysed using an independent *t* test.

3. Chi square test of association

    The data collected are frequency, or categorical, and therefore a chi square is the most appropriate method of analysis. Two variables are measured: version of the passage read and whether they would cheat or not. Consequently, the data can be analysed using a 3 (version of the passage read) x 2 (whether cheats) chi square test of association.

4. One-way ANOVA

    This is a quasi experimental design with an independent measures IV that has four conditions: no children, one child, two children, three or more children. The DV is the participants happiness score from the questionnaire. The data should be analysed using a one-way independent measures ANOVA.

5. Repeated *t* test

    An experimental design was used in this study. The IV was repeated measures, with data collected before and after a night out. The DV was score on an agreeableness questionnaire. A repeated measures *t* test is the appropriate method of analysis.

6. Wilcoxon

    As the data collected in question 5 are not parametric, the non-parametric equivalent should be used, which is a Wilcoxon signed rank test.

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