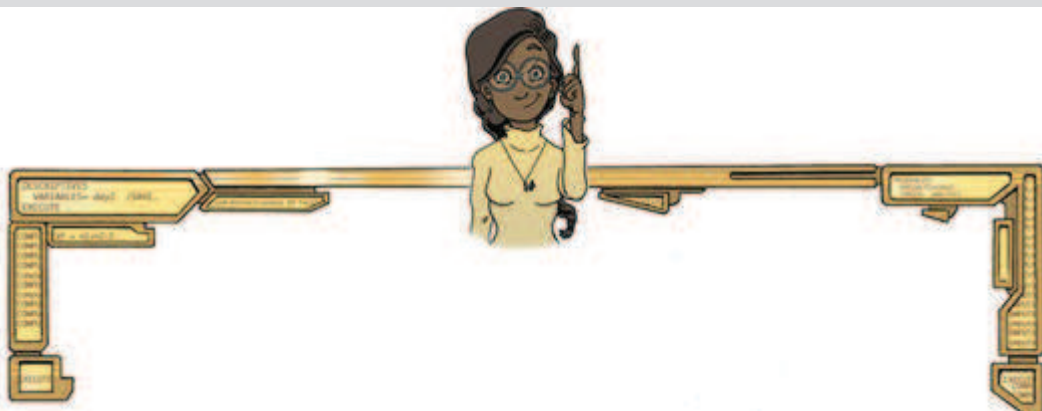


age of 3 music was my real passion: one of my earliest memories is of listening to my dad's rock and soul records (back in the days of vinyl) while waiting for my older brother to come home from school. I still have a nostalgic obsession with vinyl. The first record I asked my parents to buy me was 'Take on the world' by Judas Priest, which I'd heard on *Top of the Pops* (a now defunct UK TV show) and liked. Watching the Priest on *Top of the Pops* is a very vivid memory – it had a huge impact. This record came out in 1978 when I was 5. Some people think that this sort of music corrupts young minds. Let's see if it did ...

7.10 Key terms that I've discovered

Cochran's Q
 Friedman's ANOVA
 Jonckheere–Terpstra test
 Kendall's W
 Kolmogorov–Smirnov Z
 Kruskal–Wallis test
 Mann–Whitney test
 McNemar's test
 Median test
 Monte Carlo method
 Moses extreme reactions
 Non-parametric tests
 Pairwise comparisons
 Ranking
 Sign test
 Wald–Wolfowitz runs
 Wilcoxon rank-sum test
 Wilcoxon signed-rank test

Smart Alex's tasks



- Task 1: A psychologist was interested in the cross-species differences between men and dogs. She observed a group of dogs and a group of men in a naturalistic setting (20 of each). She classified several behaviours as being dog-like (urinating against trees and lampposts, attempts to copulate with anything that moved, and attempts to lick their own

genitals). For each man and dog she counted the number of dog-like behaviours displayed in a 24-hour period. It was hypothesized that dogs would display more dog-like behaviours than men. Analyze the data in



MenLikeDogs.sav with a Mann–Whitney test.

- Task 2: Both Ozzy Osbourne and Judas Priest have been accused of putting backward masked messages on their albums that subliminally influence poor unsuspecting teenagers into doing things like blowing their heads off with shotguns. A psychologist was interested in whether backward masked messages could have an effect. He created a version of Britney Spears’s ‘Baby one more time’ that contained the masked message ‘deliver your soul to the dark lord’ repeated in the chorus. He took this version, and the original, and played one version (randomly) to a group of 32 people. Six months later he played them whatever version they hadn’t heard the time before. So each person heard both the original and the version with the masked message, but at different points in time. The psychologist measured the number of goats that were sacrificed in the week after listening to each version. Test the hypothesis that the backward message would lead to more goats being sacrificed using a



Wilcoxon signed-rank test (DarkLord.sav).

- Task 3: A media researcher was interested in the effect of television programmes on domestic life. She hypothesized that through ‘learning by watching’, certain programmes encourage people to behave like the characters within them. She exposed 54 couples to three popular TV shows, after which the couple were left alone in the room for an hour. The experimenter measured the number of times the couple argued. Each couple viewed all TV shows but at different points in time (a week apart) and in a counterbalanced order. The TV shows were *EastEnders* (which portrays the lives of extremely miserable, argumentative, London folk who spend their lives assaulting each other, lying and cheating), *Friends* (which portrays unrealistically considerate and nice people who love each other oh so very much – but I love it anyway), and a National Geographic programme about whales (this was a control). Test the



hypothesis with Friedman’s ANOVA (Eastenders.sav).

- Task 4: A researcher was interested in preventing coulrophobia (fear of clowns) in children. She did an experiment in which different groups of children (15 in each) were exposed to positive information about clowns.

The first group watched adverts in which Ronald McDonald is seen cavorting with children and singing about how they should love their mums. A second group was told a story about a clown who helped some children when they got lost in a forest (what a clown was doing in a forest remains a mystery). A third group was entertained by a real clown, who made balloon animals for the children. A final, control, group had nothing done to them at all. Children rated how much they liked clowns from 0 (not scared of clowns at all) to 5 (very scared of clowns). Use a Kruskal–Wallis test to see whether the interventions were successful



(coulrophobia.sav).

- Task 5: Thinking back to [Labcoat Leni's Real Research 4.1](#), test whether the number of offers was significantly different in people listening to Bon Scott compared to those listening to Brian Johnson (Oxoby (2008) Offers.sav). Compare your results to those reported by Oxoby (2008).



- Task 6: Repeat the analysis above, but using the minimum acceptable offer (Oxoby (2008) MAO.sav) – see [Chapter 4](#), Task 3.



- Task 7: Using the data in Shopping Exercise.sav ([Chapter 4](#), Task 4), test whether men and women spent significantly different amounts of



time shopping.

- Task 8: Using the same data, test whether men and women walked



significantly different distances while shopping.

- Task 9: Using the data in Goat or Dog.sav ([Chapter 4](#), Task 5), test whether people married to goats and dogs differed significantly in their



life satisfaction.

- Task 10: Use the SPSSExam.sav ([Chapter 6](#), Task 2) data to test whether students at the Universities of Sussex and Duncetown differed significantly in their SPSS exam scores, their numeracy, their computer

literacy, and the number of lectures attended.

- Task 11: Use the DownloadFestival.sav data from [Chapter 6](#) to test whether hygiene levels changed significantly over the three days of the

festival.

Answers & additional resources are available on the book's website at <https://edge.sagepub.com/field5e>

