Datasets with their NZ contexts - Statistics in Research

This introduction is from the Education Committee of the NZ Statistical Association, August 2023.

The Statistics in Research site:

https://www.stats.otago.ac.nz/research/Statistics-in-Research/

comes from the Statistics/Tatauranga team in the Department of Mathematics and Statistics Te Tari Pāngarau me te Tatauranga, at the University of Otago. We acknowledge their generosity in making their work publicly available.

The site contains 20 resources. Each has an NZ context communicated by video and text, and the dataset or sets that are part of it. One resource is recent, and the others originate from a few years ago. The site has a new front page, which gives a concise description of each resource.

The Statistics/Tatauranga team at Otago aim to provide:

- a structured and comprehensive introduction to data analysis (New Zealand high school up to undergraduate university level)
- the use of the statistical software R (<u>About R</u>) (so you'll find R code ready to run, and R code to be completed).

The team describe their project in the 2022 ICOTS paper:

ICOTS11 300 HARRAWAY.pdf (iase-web.org).

Kaiako in school statistics may choose to bypass some of the resourcing and:

- turn the datasets they wish to use into .csv files
- use the contexts to take akonga through the PPDAC cycle
- use software tools such as INZight and CODAP to do the exploration and analysis.

The resources cover a wide range of investigation types and subjects, and may interest ākonga from different year levels. We hope that kaiako will find some resources that engage their ākonga.

Kaiako can use the resources for working through the PPDAC cycle, and also for applying critical thinking to existing analyses.

The most recent resource is

14 Canine Cancer Detection.

Some particularly accessible resources are the first three:

- 3 Cockles
- 4 Infrared Thermography
- 5 Māui's Dolphin.

Note that pages 1 and 2 are introductory, and the 20 resources are numbered 3 to 22.

We hope to extend our introduction to this very valuable set of resources, and provide a more detailed guide for teachers.