

Appendix: Standard & Curriculum Details

Below is the details from the standard and the curriculum documents relating to the content of this standard.

Standard Details

Evaluating statistical reports requires familiarity with:

- the statistical enquiry cycle
- principles of experimental design
- surveys and polls, including potential sources of bias
- interpreting statistical inferences
- interpreting a wide variety of statistical tables and graphs
- analysing a wide variety of statistical situations
- critiquing causal-relationship claims
- interpreting margins of error.

Curriculum Elaborations

Evaluate a wide range of statistically based reports, including surveys and polls, experiments, and observational studies:

A. critiquing causal-relationship claims

- Identifies the type of study, that is, survey, poll, experiment, or observational study.
- Draws on understandings of <u>statistical investigations</u> and how the different types of studies are conducted, uses <u>Statistical literacy critical questions</u> to evaluate the study, makes a judgment about the claim and justifies it.

B. interpreting margins of error.

The approach here is new to the statistics curriculum. It is based on making informed approximations or <u>rules of thumb</u> to interpret reported <u>margins of error</u> and is linked to <u>confidence intervals</u>.

- Explains the connections among <u>sample</u>, <u>population</u>, <u>sampling variability</u>, sample size, confidence level, and poll percentages in relation to the reported margin of error.
- Estimates the margin of error for subgroups of the poll percentages.
- See key mathematical ideas on NZMaths.

More details on the Senior Secondary Guide on TKI