

AS3.10 Inference Assessment Checklist

An approximate 'guide' - Achieve + Merit *Excellence

Introduction

- Describe the purpose for the investigation.
- Define the variable (and units) and the two groups
- Description & Investigative Question (variable, groups, population)
- + Explain the reasoning behind choice of variables.
- *Links made to research (with references included)
- + Make a hypothesis and justify your reasoning: 'I think that... because...'

Box & Dot plot

- Display – with title, labels
- Summary statistics from iNZight
Discussion of sample (in context with numerical values)
- Initial Visual Interpretation
- Centre (Media and mean)
- Shape (Symmetry, Skew, Tail)
- Spread (Middle 50%, standard deviation)
- Overlap / Shift (middle 50%)
- Unusual Features (gaps, outliers)
- + Discussion links to population or investigative question.
- + Clearly shows the difference between sample and population in discussion
- * Explanations for features and considers impact of these.
- * Refers to research made

Sample Variability

- Understanding of sampling variability shown, including variability of estimates.
- * Discussion of and effect of different sample size

Bootstrap confidence interval

- Correctly interprets inclusion (or not) of **zero** in difference of means/medians confidence interval.
- Population parameter identified (mean or median)
- + Contextually explains the interpretation. What does this mean?
- + Some level of uncertainty shown
- * Relates confidence interval to whether the original sample is representative.
- * Discussion into sample size or level of confidence.

Conclusion

- Investigative **question answered** in context.
+ Formal inference used to answer question with justification and links to context.
- + Includes interpretation of the confidence interval.
- + An understanding of sampling variability is also evident.
* Links the decision made to purpose.
- * Findings clearly communicated and linked to population and context.
* Further reflection on process or further explanations for findings.

Referencing

- Sourcing and referencing made (live links to websites).
- Wikipedia **not** used

**Limit of 4 typed sides. Less is more. Make it clear and succinct.
Conflicting or confusing statements will jeopardise 'excellence'
Bullet points are encouraged. Context, context, context**