

Using AI in Quantitative Data Analysis: Student Guide

AI can support students in quantitative research, but it should not replace their learning. This handout explains where AI can help and where human thinking is essential.

1. How AI CAN Be Used:

- Calculate descriptive statistics (mean, percentage, range, mode).
- Create visualisations such as bar charts, histograms, pie charts, scatterplots.
- Help spot patterns or unusual values in data.
- Explain statistical concepts to support learning.

2. Where AI Should NOT Replace Learning:

- Creating the student's research question.
- Writing their hypothesis.
- Interpreting results or drawing conclusions.
- Writing the Findings or Reflection sections.

3. Helpful Ways to Use AI in This Assignment:

- AI checks student calculations for accuracy.
- AI creates example graphs that students compare with their own.
- AI proposes possible patterns for students to confirm or reject.

Example Task Using AI:

AI says: 'Stress increases as study hours increase.' Do you agree? Use evidence from the dataset. Students must analyse the data to confirm or disagree.

4. Key Principle:

AI should support understanding—not replace the student's independent thinking.