Model Construction: Tables, Graphs, and Claims

g12_u09_w34

Interpret original fictional paper data. Do not measure, collect data, operate devices, intervene, or make real-world decisions.

Table T. Labeled condition X: 1, 2, 3. Labeled response Y (units): 4.0, 5.1, 5.8. Uncertainty labels: ±0.2 units each.

1. Identify the independent label in Table T.

2. Identify the response label and its unit.

3. Why must a table title name a boundary?

4. What does the uncertainty label communicate?

5. State the pattern in T without explaining it.

6. What graph type could show the relation?

7. Which axis should carry X?

8. Which axis should carry Y and units?

9. Name one non-color-only graph feature.

10. Why should uncertainty appear on a graph?

11. Calculate the change in Y from X=1 to X=3.

12. Calculate the average change in Y per X step across the table.

13. Does that average establish a constant mechanism? Explain.

14. What missing value would not mean zero?

15. Name one alternative explanation for the pattern.

16. What would a control table contribute?

17. Write a table caption with units and a fictional boundary.

18. Write one bounded graph claim.

19. Write one claim the graph cannot support.

20. Draft a two-sentence model interpretation with one uncertainty limit.