IQM3003 A2 Teacher marking exercise

Mathematics and Data Handling Component 2 Data handling presentation Riverside College travel improvement

The selected synthetic extracts below form an unmarked exercise. Apply the supplied assessment criteria, record evidence and propose marks or bands before consulting the separate teacher reference.

Source assessment: IQM3003 Component 2 Data handling presentation, Sample 2026, current v2 candidate task brief and marking criteria. Marking authority: IQM3003_A2_2026-S_Staff Marking Framework.pdf, with the supplied Staff Analytical Guide. The unchanged supplied Dataset.xlsx contains 48 constructed journeys. Exact source identities and SHA256 checks are held in the internal pack record.

These fictional extracts support staff marking practice. No live delivery, learner authorship or individual competence has been observed. Hypothetical bands apply only to the words shown; numerical oral marks and final totals are withheld.

Extract A

“J07 and J31 are blank for lateness, so there are 46 recorded values. Blank means not reported; zero is a real value meaning on time or early. I should state 46 whenever I summarize lateness.”

“The volunteers might not represent all students. I would divide the student list by campus, perhaps also by study schedule, then randomly select within each group in proportion to its size. I would track who did not respond. That should make it more representative, though one week could still miss weather or timetable changes.”

Record AO1 evidence and a provisional descriptor band: _____

Record AO2 evidence and a provisional descriptor band: _____

Record AO3 evidence and a provisional descriptor band: _____

Explain how separate AO2 and AO3 evidence informs your proposed single combined score under the supplied descriptors: _____

Record one follow-up question and a focused improvement action: _____

Extract B

“The line goes up by about 1.29 minutes for each kilometre. So the farther people travel, the longer they take.”

“The bus journeys look longer, so it probably would help if the bus were better.”

Record AO1 evidence and a provisional descriptor band: _____

Record AO2 evidence and a provisional descriptor band: _____

Record AO3 evidence and a provisional descriptor band: _____

Explain how separate AO2 and AO3 evidence informs your proposed single combined score under the supplied descriptors: _____

Record one follow-up question and a focused improvement action: _____

Extract C

Question: Does r = 0.353 prove longer journeys cause lateness?

Response: No. It is the pooled Pearson correlation between distance and duration, not lateness, and it only describes linear association in these 48 records. Mode is a likely confounder because its speeds and distance ranges differ; the mode-specific correlations are stronger. Volunteers, one week and missing context also restrict inference. I would need repeated or matched route observations, relevant covariates and a suitable trial before estimating a causal effect.

Record separate AO1 AO2 AO3 evidence and proposed descriptor bands:

_____

Record one follow-up question and a focused improvement action: _____