

Geographical Investigation

Paper 1, 20 marks

always gotta give evidence and reasons for every thing u give!!

Sampling Methods			
Probability Sampling		Non-probability Sampling	
Simple Random sampling ★	assign numbers to people then use random number generator	Convenience sampling	select samples because they are convenient
Stratified Random sampling	select a sample that has proportional makeup to population, then use random sampling	Quota sampling	select a sample that has proportional makeup to population, then use convenience sampling
☒ removes bias ☒ more representative sample		☒ used when it's unnecessary or impractical to select a representative sample ☒ can be conducted quickly ☒ biased selection of samples ☒ unlikely to be representative	
bonus: systemic random sampling		divide population by desired sample number to get n, interview every nth person	

Graphs to represent data:

- Pie chart
 - Title, legend, percentage
 - largest to smallest, clockwise order
- Bar graph
 - Title, Label both axes
- Comparative Bar graph
 - Title, Label both axes, Legend for the comparison (shaded/not)
- Histogram
 - no gap in between
- Line graph
- Scattergraph

Ways to collect data (field study)

- Questionnaire survey
- Interviews
- Secondary Data
- Field Observation - Mind map, Annotated photographs
 - compare photographs with secondary data? (to show impact)
- Word Cloud
- Pedestrian counts
- Land use analysis

Accuracy	Reliability	Validity
The precision of measurements How close the data collected is to truth values	The 'repeatability' of data Consistency of the data	Does the data and approach capture the answer to the hypothesis? Does it 'link'? The extent the data measures what was intended to be tested
To improve: • choose appropriate sites to conduct investigation • choose appropriate timings of the day • improve the quality of questions asked	To improve: • collect from a bigger sample size (more representative) • conduct at multiple sites • conduct at different times of the day - making sure there are no other variables	To improve: • improving both accuracy and reliability

"Evaluate reliability" - can talk about factors that make their results lean one way too much, must justify every factor

- must include context!! eg: students should collect data over multiple days, **rather than just...**

"State 3 set of question and response options" - **must include instructions!** (rank these options from..., choose one of the following etc)

"How far does the data support this conclusion" / "Is the conclusion valid?" - must include data!! numbers

close ended qns can also be likert scale, ranking

“Measure of central tendency”

Mean (average of everything)

- ☒ includes every value in the data set
- ☒ can be skewed by outliers

Median (middle value)

- ☒ less affected by outliers
- ☒ not as sensitive in showing the central location in data set

Mode (most frequent value)

- ☒ useful for categorical data (eg types of transport), not affected by outliers
- ☒ not useful for continuous data (eg temperature change) since there may be >1 values with highest frequency

Risks/Hazards during Fieldwork	
Risk/Hazard	Mitigation Measures (prevent)
Falls, cuts, minor injuries	Wear proper footwear and clothing, take note of hazards (uneven surfaces, steep steps...)
Traffic accidents, collisions with cyclists	Take note of local traffic hazards and road crossing procedures, avoid collecting data on the road/ in the path of cyclists