Paper 3 – Fieldwork

Systematic e.g. every 10m or every 5th person



Types of sampling

Stratified sampling -

splitting the population is most people in Sheffield are of working age, so we asked our questionnaire questions

Random sampling e.g. selecting pebbles, or people to ask in the city

Simple random sample



split into sub groups. E.g. more working aged people

Stratified sample



centre



What did you study?

One urban fieldwork to Sheffield

One river landscape fieldwork to **Burbage Brook**

Aims of the fieldwork

Urban fieldwork to Sheffield

- To assess the sustainability of Sheffield
- To assess the view that regeneration has improved the quality of life.

Aims of the fieldwork

River landscape fieldwork to Burbage Brook

To assess the Bradshaw Model (that a river changes as you move downstream - faster, deeper, wider, smaller sediment)

The fieldwork section of your exam asks you to draw on your own fieldwork and fieldwork that others have completed (unseen fieldwork). In 2022 – it is just the unseen section

Urban fieldwork: what data did you collect?

Introduction

and planning

Geographical

enquiry

Data analysis

Conclusions

Can you prove your

hypothesis?

Why do you want to study these areas?

methods?

What does the data presentation

tell you about your area of study?

Did your data represent what other

How did you collect data?

Why did you choose these

What types of data can be

histograms, pie charts, line graphs,

scatter graphs, radial graphs?

presented in bar charts,

What are your aims? Hypothesis?

Methods and

lata collection

data tells you?



- Questionnaire
- Field sketch

What was

good about

your study?

How was it

How was it

accurate?

unbiased?

Was it

reliable?

Land use survey

Secondary data

- **Population statistics**
- Information about sustainable 2. housing projects

Urban fieldwork: How did you collect the data?



- Scale of quality of the environment qualitative
- Asking people's opinions on whether the area has been improved through regeneration through open questions – qualitative

Asking peoples opinions on whether the area has been improved through regeneration using closed questions quantitative

- 3. Observing and recording key features of the area using what you perceive as important –qualitative
- 4. Tallying the frequency of different land use quantitative

- 1. Field sketch
- 2. Velocity
- 3. Width and depth (cross sectional area = width x average depth)
- 4. Valley profile
- 5. Flood risk
- 6. Sediment shape
- 7. Sediment size



Secondary data:

- 1. Flood risk maps
- 2. OS maps (to plan area)





Line graphs

Both axes are numerical and continuous i.e. each data point could be any value along the scale.

If time is one of the variables, always plot it on the x-axis.

Scatter graphs

This needs one independent variable (on x-axis) and one dependent variable (on y-axis).

Both axes must show ordinal data.

Do not join up each point: use a line of best fit instead, if appropriate.

Physical fieldwork: How did you collect the data?

- 1. Observing and recording key features of the area using what you perceive as important –qualitative
- 2. Dropping a float and timing how long it took to travel 10m along a transect at each site (left, middle and right of the stream) quantitative
- 3. Using a tape measure and measuring tape to measure the depth and width and calculating cross sectional area quantitative
- 4. Using a clinometer and ranging pole to assess the gradient of the valley quantitative
- 5. Observing features that would increase the risk, noting it down qualitative
- 6. Observing and plotting onto the powers roundness scale qual
- 7. Measuring using a calliper or ruler the width of the rock

Pie charts

A pie chart is a circle divided into sectors

Each sector represents a percentage.

Sectors can be shaded or coloured, and need labels or a key

Multiple pie charts can be used where the size of each circle shows ratio



How accurate were your results?
What were the sources of error?
How has each source of error affected your results?
Error: the difference between the result that you found and the true value

Fieldwork technique	Questionnaires were given out to every 5 th person seen in the High Street on Sunday morning
Bad evaluation	It rained heavily when I gave out my questionnaire
Good evaluation	It was raining heavily when I gave out questionnaires so there were fewer people in the High Street except for rough sleepers. My sample was biased because shoppers were underrepresented. Therefore the results of the questionnaire survey may not be accurate

Histograms

Histograms are used to show the numbers of things (or frequency) along a continuous scale

Plot the sliding scale on the x-axis

Do not leave gaps between the bars as data are continuous data

Conclusions quote data from the graphs and charts made, they link to your hypothesise (did it meet the aims?)

Key words:



<u>Hypothesis</u> – a statement you can test e.g. River velocity increases as distance increases from the source of Burbage Brook

<u>Sampling</u>-the process of measuring a small number of sites or people in order to obtain a perspective on all sites and people.

<u>Quantitative data</u> records quantities (e.g. numbers, sizes, frequencies).

<u>Qualitative data</u> records subjective qualities (e.g. opinions and attitudes).

<u>Discrete data</u> can only take certain values (e.g. whole numbers)

<u>Continuous data</u> can take any value (e.g. length, width, time)

Accuracy: how close a measurement is to the true value

Percentage bar charts

Percentage bar charts are used to show the percentage of each subdivision in several categories. It is a type of compound bar chart.

Plot the categories on the x-axis

Leave gaps between the bars as data are discrete data

Use colours or shading to show the subdivided categories, and include a key

Each bar should be the same height (i.e. 100%)