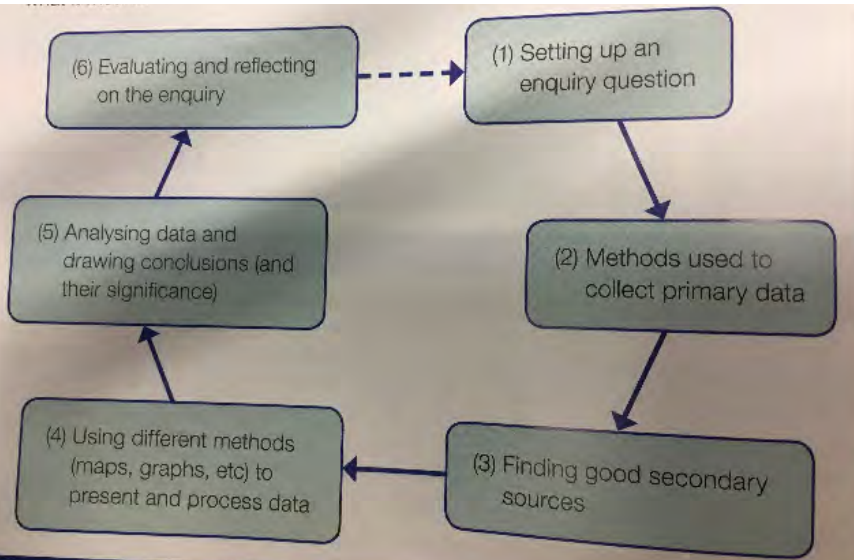


Topic 6b: Geographical Investigations – fieldwork

Investigating variations in urban quality of life



The enquiry question is:

How and why does the quality of life vary in London's central area?

Key questions:

1. What are the challenges facing some areas of London?
2. What primary evidence is there to support differences in quality of life between areas?
3. What secondary evidence is there to support differences in quality of life between areas?
4. What impacts have these differences had on communities?

Primary data

Field work data that you collect yourself or as part of a group.

Secondary data

Data that has been collected by someone else and is important for giving background information and a context for your enquiry.

- Census data from the Office of National Statistics (OS)
- Data from the Index of Multiple Deprivation (IMD)

What to consider when collecting data

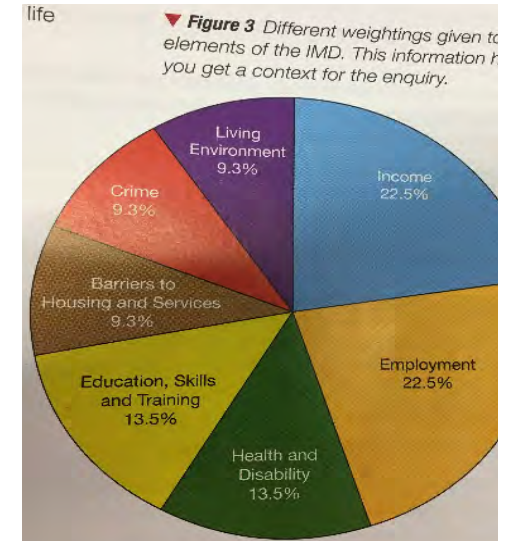
Data is essential when you want to consider what is happening in an urban area. You also need to ensure the data collected is as reliable & accurate as possible

- Sample size – more measurements will generally mean more reliable data. However, this takes time so group work is important
- Survey locations/ sites – where & how will you collect the data?
- Accuracy – how do you ensure that you are collecting accurate data. Is it about number of questionnaires?

Quantitative data

Quantitative data is data that can be measured using numbers. Sample size is important to quantitative data. There are three different ways to collect quantitative data.

- Random – samples are chosen randomly, every person in a survey has an equal chance of being selected
- Systematic – working to a system to collect data e.g. every 20 m along a road
- Stratified – deliberately selecting samples so that each part of the population is represented



Data required	Equipment needed	Brief description and reasons for doing this
Land use map	Large-scale base map and land use map key	Categories of land use are recorded either along a line (e.g. sides of a road) or in areas to produce a spatial picture of urban land use.
Shopping / environmental quality survey	Pre-prepared environmental quality survey (see Figure 3)	Measures different characteristics of a place through numerical judgements, a simple scoring system can be tallied at the end.
'Local or visitor' coded questionnaire	Questionnaire with 'closed' questions and specific answers	Specific questions are used to gauge the perceptions of people (respondents), either visitors or locals, about how they 'feel' about an area.

Figure 2 Examples of quantitative data used in urban investigations

Qualitative data

Quantitative data is data that doesn't involve counting or numbers. They are subjective & depend on the judgement of the person collecting the data. Examples of qualitative data in urban areas include

- Written site descriptions
- Taking photos & videos
- Field sketches
- Interviewing people

Data presentation

For each piece of data collected, you need to think about how you present that particular set of data & why a particular technique is most suitable. For example, whether you are dealing with continuous data or categories

- Continuous data – show change along a line of study e.g. land use along a road
- Categories – show classifications e.g. environmental quality scores into groups
- Sample sizes – where your sample sizes are different, use percentages which can be made into pie charts
- GIS/ Google maps: locate graphs on a map to show differences
- Annotated photographs show dereliction & decay, indicating a lower quality of life
- Field sketches highlight the way people & property are influenced by areas of changing quality

Qualities being assessed		High +2	Good +1	Average 0	Fairly poor -1	Very poor -2
Building design and quality	1. Well designed / pleasing to the eye					Poorly designed / ugly
	2. In good condition – e.g. paintwork, woodwork					In poor condition
	3. Houses well maintained or improved					Poorly maintained / no improvement
	4. Outside, gardens are kept tidy / in good condition					Outside gardens, or land / open space in poor condition
Traffic noise and parking	5. No vandalism, or any graffiti has been cleaned up					Extensive vandalism or graffiti in large amounts
	6. Roads have no traffic congestion					Streets badly congested with traffic
	7. Parking is easy; garages or spaces provided					Parking is difficult; no parking provided / on the street
	8. No road traffic, rail or aircraft noise					High noise volume from road, rail, and air traffic
	9. No smell from traffic or other pollution					Obvious smell from traffic or other pollution

▲ **Figure 3** An example of an environmental quality survey that could be used in an urban area

▶ **Figure 4** Extended interviews in an urban area to find out people's attitudes and opinions



When it comes to data presentation, think more than bar charts, histograms and pie charts. Figure 2 shows a range of approaches that you might consider.

▼ **Figure 2** A range of data techniques

Maps / Cartography	GIS and photographs	Table(s) of data	Graphs and charts
<ul style="list-style-type: none"> • Used to show locations and patterns. • Mini-graphs and charts can be located on maps. • This makes it easier to compare patterns at locations. 	<ul style="list-style-type: none"> • Used to show historic maps to show change in an urban area. • Useful for aerial photos of the town / city to show land use. • Helps to show deprivation and / or 'health' of a place. 	<ul style="list-style-type: none"> • Can be used to present raw data that you and your group collected. • Useful to highlight patterns and trends. • Can be highlighted and annotated, and can help to identify anomalies (any data which look unusual). 	<ul style="list-style-type: none"> • There is a wide range of graphs and charts available (Hint: make sure you choose the right chart, e.g. do you know when to use a pie chart or bar chart?) • Can show data and tables clearly – easier to read than a table of data.

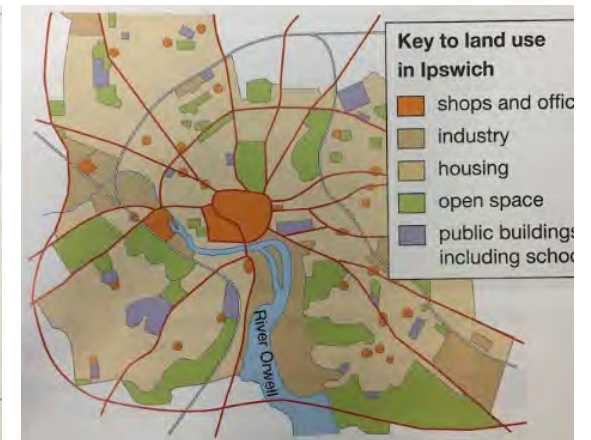
Respondent: 65-year-old retired person, discussing changes in their local town.

"I have lived in Tiverton, Devon all my life and there has been a lot of change. For a start, many of the smaller local shops have gone; the big supermarket near the river was to blame. I'm less mobile than I was and there are also fewer bus services so I need to rely on my car (but parking is free for a short period in the town). But the town has been improved I think. It's better for people as they have stopped cars driving through the middle like they used to, plus I like the coffee shops where I can relax and they have outside seating. I don't like the fact that there are fewer banks and book shops but that's probably just an age thing. I don't really do internet shopping!"

▲ **Figure 4** A coding technique is useful for a variety of text-based resources, whether primary or secondary information. Simple highlighting is used to show positive (yellow) and negative (blue) comments. The example here helps to analyse results from a questionnaire about attitudes to quality of life.

GIS

It is a good way of presenting information as it allows comparisons. It also allows more sophisticated presentation tools to be used, such as digital choropleth maps. GIS also has a number of geo-processing tools that allow you to create specialised maps, as well as look for patterns & relationships



▲ **Figure 5** Land use maps are common presentation techniques for a variety of urban studies and can be linked to urban quality of life. The example here helps you understand the nature of change in an urban area.

Analysis

You now need to write up your findings to explain what all this data shows you about how the quality of life varies within an urban area. You will need to analyse both primary & secondary data.

To analyse you need to:

- Identify patterns & trends in your results & describe them
- Make links between different sets of data e.g. how sediment size & roundness change at the same time
- Identify anomalies – unusual data that does not fit the pattern
- Explain reasons for patterns you are sure about e.g. data that shows longshore drift is occurring along the coast
- Suggest possible reasons for patterns you are unsure about – why do results suddenly change

Tips for writing an analysis

- Use correct geographical terminology
- Use the past tense
- Write in the third person (avoid using words like I or we)

Analysing qualitative techniques

- Qualitative techniques involve looking at photos & sketches that provide vital clues & evidence about what the fieldwork was like
- Annotations of photographs or field sketches can show how processes change over time

Analysing quantitative techniques

Quantitative techniques involve looking at numerical data that can be analysed by looking at the statistical techniques e.g. mean, median, mode, range & quartiles

Cause and effect	Emphasis	Explaining	Suggesting
as a result of...	above all...	this shows...	could be caused by...
this results in...	mainly...	because...	this looks like...
triggering this...	mostly...	similarly...	points towards...
consequently...	most significantly...	therefore...	tentatively...
the effect of this is...	usually...	as a result of...	the evidence shows...

▲ Figure 1 The language of analysis – a useful

Evaluation

Here you need to reflect on your investigation. You need to answer these questions:

- What went well in your investigation? Why?
- What didn't go so well? Why?
- How might any problems have affected the results?
- What could you do to improve if you did this again/ had more time?
- How do your results help you understand the key question?

Conclusion

- Write a final conclusion that ultimately gives an answer to the title question. Your conclusion should therefore:
- Refer to the main aim of your investigation. What did you find out?
- State the most important data to support your conclusion.
- Comment on any anomalies and/or unexpected results.
- Comment on the wider geographical significance of your study e.g. why is this important? Could your results be useful to others? Do you think all urban areas are like this?

(1) What part of my fieldwork design caused errors to be introduced?

(2) How might the problems introduced affect the reliability and validity of outcomes?

(3) How do my results help me reflect more about geographical knowledge gained?

▲ Figure 1 Some key questions to ask in an evaluation

Possible sources of error	Impact on quality
Sample size	Smaller sample sizes usually means lower quality data.
Frequency of sample (e.g. every 10 metres instead of every 100 metres)	Fewer sites reduces frequency, which then reduces quality.
Type of sampling	Sampling approaches may create 'gaps' and introduce bias in the results.
Equipment used	The wrong / inaccurate equipment can affect overall quality by producing incorrect results.
Time of survey	Different days or times of day might influence perceptions and pedestrian flow, for example.
Location of survey	Big variations in environmental quality can occur between places very close to each other.
Quality of secondary data	Age and reliability of secondary data affect their overall quality.

▲ Figure 2 Sources of error in a geographical enquiry