

Page 2

Use these images to discuss possible theoretical contexts which might be investigated in urban environments. Specialised concepts such as identity, globalisation, inequality, representation, risk and sustainability are all concepts that have potential for investigation in urban environments. Processes such as gentrification and regeneration also provide possible theoretical contexts.

The photos show:

- Top left** The Beatles statue, Pier Head, Liverpool. Rebranding and place identity are concepts that can be investigated through NEA. Students could identify public artworks like this, as well as iconic buildings and also use surveys with local residents to investigate the importance of the built environment in creating a sense of place. Alternatively, they could conduct interviews with key stakeholders and analyse online marketing material for the city they are investigating.
- Top right** Graffiti in Shoreditch, London. Students could investigate perceptions of street art and graffiti as part of an investigation of place identity. Alternatively, they may want to investigate patterns of inequality/deprivation or the process of gentrification. If so, they could use graffiti/street cleanliness as indicators of multiple deprivation whereas murals/street art could be used as an indicator of gentrification.
- Bottom left** Derelict pub on the edge of Birmingham's city centre. Students could investigate the spatial segregation of land uses within a city centre – perhaps using models of zones and assimilation and discard to explain spatial patterns within the city they are using for their enquiry. This particular area of Birmingham has been derelict for some years as the area is within the development envelope of the new HS2 rail station at Curzon Street.
- Bottom right** The Selfridge Building, Birmingham Bullring. Students could investigate perceptions of an urban regeneration scheme such as the regeneration of Birmingham's Bullring, or suggest ways in which the quality of the urban environment could be improved in future redevelopment.

Pages 3 and 4

Environmental gradients can be seen where there is a correlation between distance and another variable. As such, the most effective way to investigate an environmental gradient is by sampling along a line (or transect).

A key consideration will be where to start and end the transect. The transect could begin at a significant feature of the urban area, such as within the CBD or within a regenerated neighbourhood. The transect could be used to investigate distance decay – how data declines from a significant place (or event held within the urban environment), for example, how noise decays away from a busy road or how congestion decreases with distance from a stadium. The transect should continue until change in the variables is no longer significant. This means that the length of the transect will vary depending on what is being investigated: parking/congestion nuisance from a large event such as a concert or sporting event will likely require a longer transect than one used to investigate the distance decay of litter from a take-away outlet.

Page 5 Review

There are numerous environmental gradients that could be investigated in an urban environment using transects. Students could investigate gradients in human data or physical data such as:

- temperature
- wind
- noise
- amount of green space
- amount of traffic or footfall
- the cost of parking
- building height
- land use
- accessibility (factors such as pavement width and availability of safe places to cross roads)
- street cleanliness, frequency of graffiti or amount of litter.

Data available in secondary sources might also show evidence of environmental gradient, such as:

- property values
- rateable values
- crime.

Ask students to:

1. Identify data that might be sampled using a transect. Ask them to consider the concept of distance decay as well as what they understand about urban morphology.
2. Suggest possible research questions or hypotheses that could be investigated using this sampling strategy in an urban environment. It should be possible to prove/disprove a hypothesis by the use of empirical evidence. In perception surveys, a research question is usually more appropriate. Discuss whether the suggested hypotheses are suitable or whether a question would be more appropriate.
3. Discuss the likely length of the transect and how they will know when to end it.

Page 6

Transects sample data in one dimension. They are designed to show correlations between distance and another variable but they can't easily be used to generate data for a map. However, it is possible to use several transects to investigate patterns over two dimensions. This is advantageous because it allows spatial patterns to be investigated which can then be mapped – vastly increasing the choice of methods of data presentation and data analysis that are available to the student when they come to write up their report.

In this example, the spatial impact of the park on the quality of the urban environment could be investigated using several short transects, each radiating out from the park.

Notice that it is often impossible to design straight transects that radiate away from the place or feature of interest because roads, buildings or canals simply get in the way. The route of the transect will, therefore, be chosen because it is:

- pragmatic (there is something in the way)
- safer (the route avoids crossing a busy road)
- accessible (there is a pedestrian crossing or footbridge)

This means that non-probability sampling is used to help design the route of the transect. Sample points can also be chosen using non-probability sampling (because, for example, they are convenient) or they can be selected using a systematic method, such as every x metres.

Pages 7 and 8 *These pages contain animations*

Students can also collect spatial data from across an urban area by using grid co-ordinates to select sample points. The sampling could be:

- point sampling, for example counting footfall at discrete points within the urban environment
- area sampling, for example giving holistic EQI scores after considering the quality of the environment in an area of, say, 50 metres by 50 metres.

Places that are sampled can be chosen:

- systematically, for example as close as possible to each grid intersection
- randomly, by using random numbers to generate grid co-ordinates.

Places can also be selected using non-probability sampling for reasons that are pragmatic or convenient. See the separate presentation for detailed information about this strategy.

Pages 9 and 10

'Can you draw a map?' is a useful question to ask students when they present their proposal form. If data has been sampled from across an urban area then the opportunities for data presentation and data analysis are greatly increased.

Page 11

In a control sample, students should sample data from an area unaffected by the variable that is the focus of the research. This is the same approach as is taken in a scientific experiment when all factors are held constant except for one: the independent variable which is the focus of the research. This approach may be helpful if students are investigating processes such as gentrification, regeneration or traffic calming/traffic management and their impacts on a particular location.

In this example, the investigation is about environmental quality in Spinningfields (in red), an area that has undergone regeneration. Control samples in the green area will establish what 'typical' conditions are like elsewhere in an area unaffected by the regeneration strategies used in Spinningfields.

This approach is different to a 'comparative study'. In a comparative study, the same variable or process is investigated in two different locations. For example, the perception of regeneration in Spinningfields could be compared to the perception of regeneration in the Oxford Road Corridor – each of which is a small district in Manchester. Comparative studies effectively double the amount of data that needs to be collected.

Page 12 Review

In this example, there may be variations in traffic or footfall that occur:

- during the day, because of commuter traffic entering or leaving the city
- during the week, especially between weekdays and weekends
- throughout the year, perhaps with reduced flows during holiday periods when parents are no longer driving children to and from school.

Ask students to:

1. Identify how flows of traffic and footfall may vary over different lengths of time.
2. Suggest possible research questions or hypotheses that could be investigated in this type of location.
3. Consider how their ideas could relate to specialised concepts such as causality, systems, threshold or risk.