

# A-LEVEL GEOGRAPHY

(7037)

Marked investigation with commentary

An example investigation folder with completed proposal form and examiner commentary

Investigating the relationship between perceived safety and environmental quality in Liverpool city centre.

Version 1.0 November 2017

# EXAMPLE NEA INVESTIGATION



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# 2018 candidate record form

## A-level Geography

### NEA Independent fieldwork investigation (7037/C)

Please attach the form to your candidate's work and keep it at the centre or send it to the moderator as required. The declarations should be completed by the candidate and teacher as indicated.

**Centre number**

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**Centre name**

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**Candidate number**

[Click here to enter.](#)

**Candidate's full name**

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Work submitted for assessment **must** be the candidate's own. If candidates copy work, allow candidates to copy from them, or cheat in any other way, they may be disqualified.

**Candidate declaration**

Have you received help/information from anyone **other than** subject teacher(s) to produce this work?

- No       Yes (*give details below or on a separate sheet if necessary*).

[Click here to enter text.](#)

Please list below any books, leaflets or other materials (eg DVDs, software packages, internet information) used to complete this work **not** acknowledged in the work itself. Presenting materials copied from other sources **without acknowledgement** is regarded as deliberate deception.

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From time to time we use anonymous examples of candidates' work (in paper form and electronically) within our guidance materials to illustrate particular points. If your work appears in AQA materials in this context and you object to this, please contact us and we will remove it on reasonable notice.

I have read and understood the above. I confirm I produced the attached work without assistance other than that which is acceptable under the scheme of assessment.

Candidate signature.

Date [Click here to enter a date.](#)

**Teacher declaration**

I confirm the candidate's work was conducted under the conditions laid out by the specification. I have authenticated the candidate's work and am satisfied (to the best of my knowledge) that the work produced is solely that of the candidate.

Teacher signature.

Date [Click here to enter a date.](#)

**Candidate number**

[Click here to enter.](#)

**Candidate's full name**

[Click here to enter text.](#)

## NEA proposal

### To be completed by the candidate

Investigation title [Investigating the relationship between perceived safety and environmental quality in Liverpool city centre.](#)

#### How the title links to the specification content

Liverpool is my local city and a good example of a contemporary urban environment as there has been much change in the last decade. It is the focus for my local place study (3.2.2.4) and I shall be considering people's lived experiences of this place. I will also be considering urban policy and planning in recent years in Liverpool (3.2.3.1), and touching on social and economic issues associated with urbanisation (3.2.3.3.) and aspects of social sustainability and the concept of liveability (3.2.3.8).

#### Planned investigation hypothesis or question/sub-questions

Crime reduction and safety features have been incorporated into the new development of Liverpool One but are less obvious in older parts.  
People feel safer in areas where the Environmental Quality is better.  
There is a difference between the perception of safety and actual crime figures in the centre of Liverpool.

#### Investigation focus – indication of how the enquiry will enable the candidate to address the investigation title and explore the theme in relation to the chosen geographical area

I will be looking at areas of Liverpool that have recently been redeveloped and investigating how aspects of the Safer Places report have been incorporated in the design. I will compare this to older areas (built before the report). I will gather opinions on the relative safety of different parts of Liverpool centre and compare these to my own ideas of environmental quality. I will also use the police crime map to compare perceptions to the reality of crime across the area.

#### Planned methodology – indication of qualitative and/or quantitative techniques including primary and, if relevant, secondary data collection techniques. Indication of the planned sampling strategy or strategies

I will visit Liverpool One and the St Johns Centre/Williamson Square area and map safety features such as CCTV, well-lit spaces, outdoor restaurant tables and also hazards such as derelict buildings. I will carry out an environmental quality survey at 10 sites around the centre of Liverpool and take photos. These photos will be used to question a number of people on their perception of safety in Liverpool as part of a questionnaire. I will use a stratified sample to ensure I get a range of people responding. These are all primary sources. I will also use the police crime map (online) to compare perceptions with actual figures for crime in Liverpool and possible other secondary sources such as newspaper reports.

Data collection:  Individual  Group

### To be completed by the teacher

#### Teacher approval for the investigation or details of any necessary amendments that need to be made before approval can be given

Your enquiry proposal is well planned and you have developed 3 hypotheses that are capable of being tested against field evidence. Some thought has been given to sampling although you should ensure that you obtain a representative sample of data. This not clearly indicated for some data collection methods. Think carefully about how you structure your questionnaire, considering both ethical and safety aspects.

Approved  Approved subject to the implementation of amendments above  Resubmission required

Full name [Click here to enter text.](#)

Teacher signature.

Date [Click here to enter a date.](#)

**To be completed by the teacher**

Marks must be awarded in accordance with the instructions and criteria in the specification.

Area	Level	Overall level	Mark	Comment
<b>Area 1. Introduction and preliminary research</b> <b>10 marks</b> (a) To define the research questions which underpin field investigations (AO3)	3	3	7	Clear aim and sub-hypotheses explicitly linked to specification. Relevant sources used to some extent, consistent with low level 3.
(b) To research relevant literature sources and understand and write up the theoretical or comparative context for a research question (AO3)	3			
<b>Area 2. Methods of field investigation</b> <b>15 marks</b> (a) To observe and record phenomena in the field and devise and justify practical approaches taken in the field including frequency/timing of observation, sampling, and data collection approaches (AO3)	3	3	8	Generally clear data collection with some more accurate and specific than others. Problems with sampling method and timing of data collection.
(b) To demonstrate practical knowledge and understanding of field methodologies appropriate to the investigation of human and physical processes (AO3)	3			
(c) To implement chosen methodologies to collect data/information of good quality and relevant to the topic under investigation (AO3)	2			

Area	Level	Overall level	Mark	Comment
<b>Area 3. Methods of critical analysis 20 marks</b>				
(a) To demonstrate knowledge and understanding of the techniques appropriate for analysing field data and information and for representing results, and show ability to select suitable quantitative or qualitative approaches and to apply them (AO3)	3			Relevant techniques selected and presented but not applied to all data or all sites studied. In places work is thoroughly analysed with reference to aims but this is not fully consistent. Good use of statistical technique.
(b) To demonstrate the ability to interrogate and critically examine field data in order to comment on its accuracy and/or the extent to which it is representative, and use the experience to extend geographical understanding (AO3)	3	3	11	
(c) To apply existing knowledge, theory and concepts to order and understand field observations (AO2)	2			
<b>Area 4. Conclusions, evaluation and presentation 15 marks</b>				
(a) To show the ability to write up field results clearly and logically, using a range of presentation methods. (AO3)	3			Clear ability to write up fieldwork in logical format with appropriate use of methods. Analysis varies and in some places is very detailed and precise but is not consistent. Final links to theory and context are limited.
(b) To evaluate and reflect on fieldwork investigations, explain how the results relate to the wider context and show an understanding of the ethical dimensions of field research. (AO3)	3	3	8	
(c) To demonstrate the ability to write a coherent analysis of fieldwork findings in order to answer a specific geographical question and to do this drawing effectively on evidence and theory to make a well-argued case. (AO3)	2			
<b>Total (60 marks)</b>			34	

**Details of additional assistance given**

Record here details of any assistance given to this candidate which is beyond that given to the class as a whole and beyond that described in the specification (*continue on a separate sheet if necessary*).

[Click here to enter text.](#)

**Concluding comments**

An interesting study of a topic relevant to current geographical themes. Some very well-thought out methods and examples of data presentation and analysis but not consistently so and some opportunities for analysis have been missed – for example inside and outsider perspectives or age specific responses and other aspects of positionality could have been explored.

## Investigating the relationship between perceived safety and environmental quality in Liverpool city centre

### Executive summary

The aim of this study was to investigate the relationship between perceived safety and environmental quality in the centre of Liverpool. Hypotheses were:

1. Crime reduction and safety features have been incorporated into the new development of Liverpool One but are less obvious in other areas
2. People feel safer in areas where the environmental quality is better
3. There is a difference between the perception of safety and actual crime figures in the centre of Liverpool

To test these hypotheses a mapping exercise was carried out in Liverpool One, the recently redeveloped shopping centre, and also in an older part of the retail area around St John's market. Features that might deter or encourage crime, as suggested in the Home Office 'Safer Places' report, were recorded and compared. Results were shown in a comparative bar graph and annotated photos.

Environmental quality was then assessed at each of 10 sites around the city centre using a scale of 1-10 and 6 wide-ranging criteria. Photos were taken of each of these sites and used as a basis for a perception study involving female respondents of a variety of ages. The two results were compared statistically using Spearman's Rank and were found to be statistically significant. Other results from the perception study were shown in a pie graph and word cloud.

Perceptions were also compared to actual crime figures for June 2017 using information on the police website. A scatter graph showed a mixed pattern with no clear correlation.

In conclusion it was found that safety and crime reduction features appeared to be incorporated in the design of new developments within Liverpool and have had some success in improving people's perception of the area however other factors influence how people feel about a place.

### Introduction

#### Background and history of Liverpool

The investigation was located in Liverpool, a city with an estimated population of 489,541 residents according to data based on the last census. This population has shown a gradual increase after slipping to around 400,000 in the early 1980's as a result of industrial decline. Liverpool is a port, University City, cultural centre and major retailing centre for the area. It is located in the north-west of England on the banks of the River Mersey at the junction with the Irish Sea.

The executive summary is not essential but it provides a useful summary of the enquiry, and adds a professional touch.

Area 1: Basic location details including maps helps to give a geographical context, although lacks some map conventions and is not specific.



Figure 1 Liverpool is a major city in NW England



Figure 2 Liverpool is separated from the Wirral Peninsula by the River Mersey

In the nineteenth century Liverpool was a very important port for trade with America and it prospered during the Slave Trade. In 1830, the Liverpool and Manchester Railway was opened which further increased trade and population, especially with Irish migrants; by 1851, one quarter of the city's population was Irish-born. As growth continued, the city became known as "the second city of the Empire". During the Second World War Liverpool suffered a blitz almost as bad as London.

From the mid-twentieth century, Liverpool's traditional manufacturing industries went into sharp decline, and containerisation almost finished the city's docks as many of the existing docks were too shallow for new larger ships. As a result of all this the unemployment rate in Liverpool rose to one of the highest in the UK. Parts of the city became quite run down and crime rates rose. The city became

Area 1: Some attempt to portray the historical and economic context to the study area and set the scene for the investigation but clear links are not always made, this section is perhaps over-long and at a tangent to the investigation in places and too generalised.

Area 1, strand 1: some reference to two areas of the specification and reference to background information (although source not quoted).

renowned for strikes and in 1981 the riots in Toxteth further damaged its reputation.

However other aspects of the city were more positive - starting in the early 1960s, the city became internationally renowned for its culture, particularly as the centre of the "Mersey beat" sound most famously including The Beatles. In recent years, Liverpool's economy has recovered, partly due to tourism as well as substantial investment in regeneration schemes. The city was a European Capital of Culture in 2008. A cruise liner terminal was opened in 2007 and once again large ships can be seen in the Mersey.



**Figure 3: The Emerald Princess docked in Liverpool recently. Liverpool is now a popular turnaround and transit port for many major cruise operators including Disney and Cunard. Unlike cities such as Hull the cruise ships berth right in the historic centre of the city.**

This history makes Liverpool an ideal place for this investigation and is a good example of a contemporary urban environment attempting resurgence (3.2.3.1) Against a background of a deteriorating and run-down environment, with a reputation for crime and disorder, (an example of social and economic issues associated with urbanisation, 3.2.3.3.) recent investment has attempted to regenerate and revitalise the city centre and its economy. A massive project in the retail heart of Liverpool, with investment of nearly £1 billion (mainly by Grosvenor Estates), created a state of the art shopping, dining and leisure area now known as 'Liverpool One'. Very careful planning and a team of architects were employed to make the area safe and attractive and the project has been seen to be very successful. However other areas of Liverpool are struggling to complete and smaller redevelopment projects have to contend with very old buildings and street layout which might be less than ideal. This investigation looks at how the quality of the environment varies across Liverpool in terms of safety features and the potential for crime and compares this to individual's perception of their own safety.

### Safer Places

The 'Safer Places' report ('Safer Places - The Planning System and Crime Prevention' – Home Office 2004) suggests that 'designing out crime and designing in community safety should be central to the planning and delivery of new development'. It also points out that planning out crime makes sense financially – much easier to take steps from the outset rather than try to correct

Detailed reference to relevant literature – the Safer Places report by the Home Office – referenced although much of the earlier material is unfocused. Theoretical context considered here.

Use of other source again referenced and key terms introduced.

States clear aim and 3 sub-hypotheses which can all be tested in the field with use of primary and some secondary data. The identification of three sub-hypotheses gives the enquiry a tighter focus.

Further detailed locational background.

mistakes later. As the first phase of the Liverpool One development was opened in 2008 it could be expected that ideas from the report would be evident in the area. However the report goes on to mention 'This doesn't mean that planning alone is expected to solve the problem of crime, or that crime prevention should be the sole concern of planning. Nor does it mean that planning can be expected to anticipate every eventuality' hence it is relevant to investigate the perceived success of such measures in Liverpool whilst recognising that planners and developers will have had other aims in mind when building Liverpool One and will not have wished to produce a 'fortress landscape' (Skinner et al, 2016). Overall the Safer Places report is about promoting 'safe, sustainable and attractive environments' which is likely to be a key aim for most redevelopment projects (studied in 3.2.3.3. and 3.2.3.8) and implicit in the idea of liveability, the ideal of collectively improving everyone's quality of life both now and in the future in the urban environment.

### Hypotheses

The investigation is divided into three sub-sections in order to fully investigate the relationship between perceived safety and environmental quality in Liverpool:

1. Crime reduction and safety features have been incorporated into the new development of Liverpool One but are less obvious in other areas
2. People feel safer in areas where the environmental quality is better
3. There is a difference between the perception of safety and actual crime figures in the centre of Liverpool

Liverpool One is described as a 'shopping, residential and leisure complex' ([liverpool-one.com](http://liverpool-one.com)). It covers 42 acres of land in the centre of Liverpool, much of which was previously underutilised as waste ground, one level car parking and low income shops. The development (originally called 'The Paradise project') was an attempt to bring Liverpool back into to the top 5 most popular retail destinations in the UK, having slipped to 17<sup>th</sup> by the 1970's. It was hoped that by attracting large anchor stores including John Lewis (actually a relocation from further east in the city) and Debenhams other big names would follow and simultaneous improvements to transport (car parking, bus and train stations are all integral to the scheme) would bring back shoppers who had fled to Manchester, Chester or the Trafford Centre. The project includes around 170 stores, a 14-screen cinema, 36-hole indoor adventure golf, 5 acre park used for many events throughout the year, two large hotels, 600 apartments, cafes, restaurants and bars. Liverpool One claims to be the largest open air shopping centre in the UK and as many of the buildings were purposely designed by different architects the development is able to differentiate itself from other shopping centres.

Appropriate photos imbedded into text to illustrate differences in study area.

Closer linking of literature with aims of investigation.

Relevant secondary source introduced.



Partially covered walkway

Two floors of shopping topped with a 'leisure terrace' of restaurants, park and cinema

**Figure 4 South John Street the main shopping area of Liverpool One**

St Johns Market in contrast is a covered centre opened in 1969. It includes some market stalls (it was originally the site of a market before bombing in WW2) around 100 shops, and some fast food cafes with an integral car park. The entrance onto Houghton Street has seen some refurbishment recently but the area is struggling since the departure of John Lewis to new premises in Liverpool One.



Old John Lewis building Houghton Street

Radio City tower

1960's covered shopping centre

**Figure 5 St John's centre looking down Houghton Street**

The investigation considers environmental quality from the point of view of crime reduction and safety, looking at features discouraged in the Safer Places report such as frontages closed or covered at night (e.g. by roller shutters), badly-lit alleyways and potential shortcuts, run down areas, concealed doorways and also good planning design such as wide open areas, cafes with on-street seating, clear signage etc.

The police website interactive crime map (Police.uk) provides information on the incidence of reported crime at street level for a variety of dates and also summarises types of crime. This is a secondary source that can be used to compare perception with reality.

Area 2: appropriate methods selected to give both quantitative and qualitative data.

Brief description of 'mapping' technique with no indication of use of tally chart or spatial mapping.

Clearer method for assessing EQ with number and location of sites and some justification of why chosen.

## Methodology

### Mapping safety features/potential trouble spots

For the first sub-hypotheses features that might lead to crime reduction or increase safety in two different areas of the city were recorded. The first area was the relatively new development of Liverpool One, completed since the publication of the 'Safer Places' report, and this was contrasted with the area of St John's market.

The following features were recorded:

	Positive features		Features which could increase risk of crime
A	Good signage	G	Short cuts/alleyways
B	Street Art	H	Recessed doorways
C	CCTV cameras	J	Benches or low walls near cash points
D	Street lighting	K	Roller-shutter blinds
E	Outdoor restaurant tables	M	Presence of people sleeping rough

Recordings were made on the same day in September. Features were chosen after researching measures that might be used in planning out crime. Features which could lead to an increase in crime were mentioned in the 'Safer Places' report. The two areas were chosen in order to contrast a more recent development with one constructed when prevailing opinions on crime and planning were different and to show a variety of types of development as not all of Liverpool has been redeveloped recently. An ethical consideration was that a person sleeping rough is not necessarily threatening or a potential criminal.

### Assessing environmental quality

10 sites around Liverpool CBD were visited and their environmental quality was assessed, for a number of criteria, on a scale of 1-10. The results were recorded on a data collection sheet and used to compare with people's perceptions (below). The sites were visited on the same day and were chosen as representative of Liverpool and known to be well used in the evening and likely to be familiar to people completing the perception survey.

Criteria used at each site:

	1	2	3	4	5	6	7	8	9	10	
Potential drunks as many bars/clubs											No bars/clubs
Frontages closed or covered e.g. roller blinds											Clear view from windows or frontages
Several alley ways, side turnings/short cuts											No Alley ways, side turnings/short cuts
No people around											Busy with people, on street seating

Sites chosen are listed but would be more usefully shown on a map.

Fuller description of attempt to collect qualitative data. Mention of pilot study carried out.

Some awareness of sampling methods and problems of getting responses.

Some awareness of limitations of data collection during the day and of the weakness of the secondary source employed (police crime figures).

												etc
Derelict or run down												Modern and clean
Poor visibility												Wide open view

Sites chosen:

1	Lime Street main approach
2	Lime Street / Empire Theatre
3	Colquitt Street
4	Concert Square
5	Hanover Street/College Lane
6	Queen Square
7	Cavern Walks
8	South John Street
9	Leisure terrace / Chevasse Park
10	Paradise Street

### Assessment of the perception of safety in areas of Liverpool

Survey participants were first asked to give five words they would use to describe their feelings about Liverpool city centre. These were recorded on a survey sheet, along with age group. (After a pilot study it was realised that male respondents gave little or no variation in their responses to this survey and that in order to see variations in the perception of safety in a number of places it was more appropriate to concentrate on female opinions so there was no need to record gender). The age categories were used to see if there was a variation in perception according to age e.g. older women might feel intimidated in an area with loud music whilst young students might just view it as a lively atmosphere. Systematic sampling was initially employed to try to avoid bias, questioning every fifth female passerby. However as many people were reluctant to stop shopping and answer questions respondents were also selected from family members and friends.

Photographs were taken at each of the ten sites used for the Environmental Quality survey. These were shown to the respondents and they were asked to think about how they would feel walking alone at night in the area. Each site was given a letter using the following statements:

- a. I would avoid this area at night
- b. I would walk through here but I would feel uneasy
- c. I would be happy to walk here and would feel safe

Finally respondents were asked whether they thought crime in Liverpool was higher than average for the UK, about average or below average.

One limitation of this method was that photos were taken and questions asked during the day time and not at night. Some people might find it difficult to imagine the area at night. Perceptions can also depend on whether a person has an insider or outsider perspective but this was not recorded in the survey.

### Comparing perception to police crime figures

Using the secondary source provided on the police.uk website it was possible to look at the actual crime figures for each of the sites studied and to compare these figures with perception. The interactive map makes it possible to look at

Data is presented in a variety of formats including comparative bar graph, proportional symbols map, scatter graph, pie chart and word cloud. ICT is used competently in places.

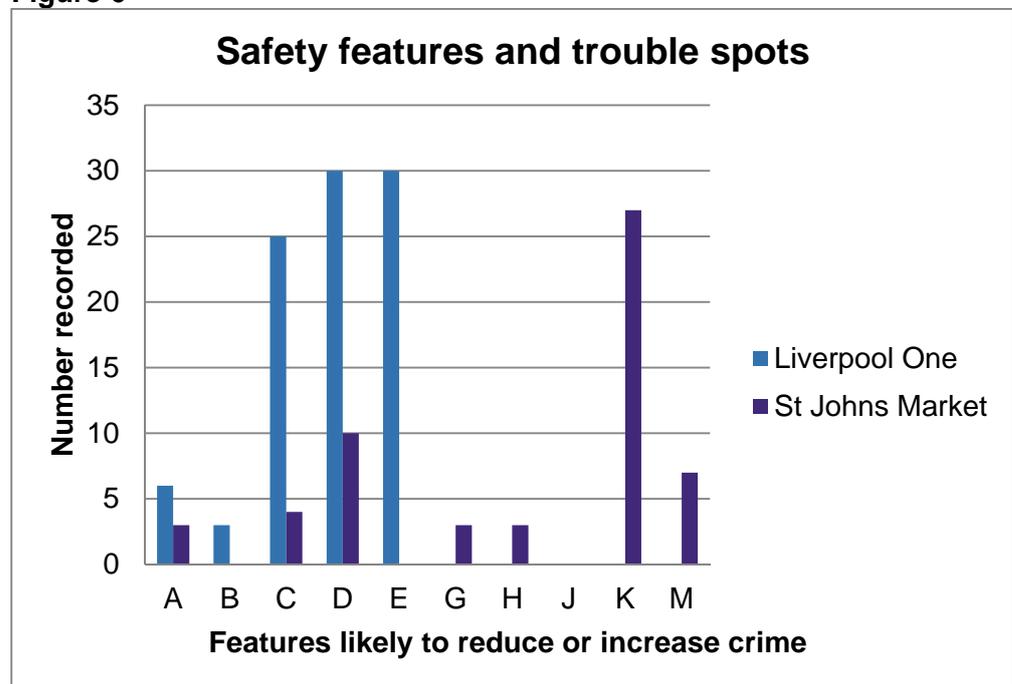
Data presentation is integrated into text and referenced.

postcodes and individual streets. The accuracy of this source was tested using a known incident and postcode. However it was realised that this source can only record reported crime and that many crimes go unreported for a variety of reasons. A person who 'lost' their wallet whilst out on a pub crawl might not be aware of exactly where they lost it, for example

## Data presentation and analysis

### 1. Crime reduction and safety features have been incorporated into the new development of Liverpool One but are less obvious in other areas

Figure 6



#### Key to features

	Positive features which could reduce crime risk		Negative features which could increase crime risk
A	Good signage	G	Short cuts/alleyways
B	Street Art	H	Recessed doorways
C	CCTV cameras	J	Benches or low walls near cashpoints
D	Street Lighting	K	Roller-shutter blinds or similar
E	Outdoor restaurant seating	M	Presence of people sleeping rough

Looking first at the 'positive features' on figure one it is clear that the plans for Liverpool One incorporated many crime reduction features. A retail liaison officer employed by the developers actually confirmed that there are over 600 security cameras, but obviously many of these could not be seen easily or were inside shops, and that making shoppers feel safe was a key priority for the developers. The outdoor seating was mainly on the upper floor, the leisure terrace, and was planned to take advantage of the view across Chevasse Park towards the Albert

Some detailed analysis of findings but not consistently so.

Dock and the River Mersey so did not actually overlook the shopping area and may have been less of a deterrent to bag snatchers etc. than the report supposed. St Johns Market scored less highly on each indicator with no street art or outdoor restaurant seating evident. There was a food court in the basement of the centre but this was very hidden from view of the shops. A drawback of this technique is that it relied on visual observations and some cameras may have been hidden from view.

Looking at the 'negative features' there is a more striking contrast with a complete absence of short cuts/alleyways, recessed doorways etc. observed in the new development. The owners employ a large number of security and cleaning workers who would quickly move on anyone who looked likely to camp out in a doorway and the sheer numbers of people walking around would make it more difficult anyway. However it was noticed that one of the access routes to the leisure terrace, a long steep outdoor escalator, was partially enclosed creating a dark recess hidden beneath it which could be used for crime or hiding out. The main issue with St Johns Market area is that shopkeepers feel the need to have tight security themselves and so have almost universally brought in steel roller-shutters to cover windows at night and when the shop is closed. This can mean reduced light and are themselves prone to graffiti. Reduced income as a number of shops were vacant would mean the centre management could not employ as many security people either.

## 2. People feel safer in areas where the environmental quality is better

Figure 9 (below) shows the results of the Environmental Quality (EQ) survey for each of the 10 sites. EQ was calculated using the criteria shown in the methodology which was adapted from the Safer Places report. Fig 9 shows a marked variation in EQ around Liverpool with the highest values in the recently built areas of Liverpool One and also the new improved entrance to Lime Street Station (site 1 and figure 7 below). However a side exit from Lime St, used by many to reach the Empire Theatre and taxi rank, was given very low points (figure 8).

Inclusion of some relevant annotated photos but not all sites included.

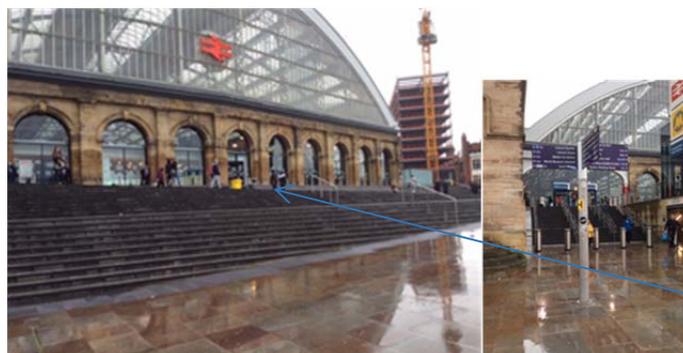
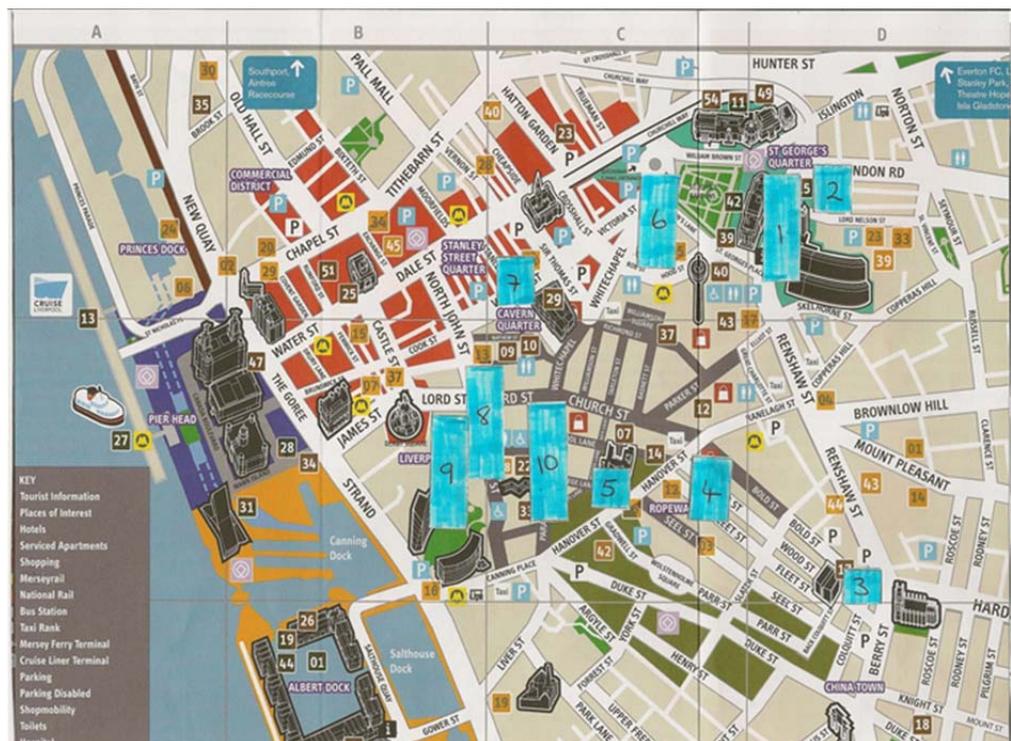


Figure 7: The newly renovated entrance to Lime Street with wide open steps, good signage and a glass elevator.



Figure 8: Less attractive exit, concealed doorways and a random wall provide potential for crime

Figure 9: Environmental Quality total scores for 10 sites around Liverpool centre using criteria based on Safer Places report. A higher score shows a better environmental quality. The maximum score was scored at site 10



Site 3 scored very low on closed or covered frontages and a network of dark alleyways crisscrossing poorly lit streets on the edge of China Town. There were a number of bars in this area and regeneration money such as for the 'Rope Walks' scheme had obviously not extended this far east. Similarly site 5 (Hanover Street, below) was a narrow road with a number of pubs and even a sign suggesting 'a cure' for painful sobriety!

Partial interrogation of results from environmental quality survey with some attempt to link results to wider understanding.

Displays good understanding of method for manipulating data in preparation for using Spearman's Rank. Technique carefully employed and interpreted using critical values.



Figure 10 – concealed doorway and graffiti give this area an unsafe feel

To consider the perception of crime in the 10 sites shown on figure 9, a sample of women were asked to rate their feelings about each site after looking at photos such as those shown in figures 7,8 & 10. These results were converted into numerical values:

- Answer a 'I would avoid this area at night' = 1
- Answer b 'I would walk through here but I would feel uneasy' = 3
- Answer c 'I would be happy to walk here and would feel safe' = 9

This is a non-linear scale because it exaggerates the perceived safety of the safest places, by giving them the highest scores. This method also reduces the number of places that have the same total score and makes the Spearman Rank analysis easier because there are fewer tied ranks. Spearman's Rank was used to analyse statistically whether there was any relationship between environmental quality and perception of crime.

Using the formula:  $r_s = 1 - \frac{(6\sum d^2)}{n^3 - n}$  Spearman's Rank was calculated to be 0.885 to three decimal places. The result was then compared to the values below to test its significance.

**Figure 11 Levels of significance for Spearman's rank correlation coefficient**

Table D.6 Selected values of Spearman's rank correlation coefficient ( $r_s$ ). The results are significant if the calculated value of  $r_s$  is higher than the table value

n	$r_s$		n	$r_s$	
	P = 0.05	P = 0.01		P = 0.05	P = 0.01
5	1.000	–	18	0.472	0.600
6	0.886	1.000	19	0.460	0.584
7	0.786	0.929	20	0.447	0.570
8	0.738	0.881	21	0.436	0.556
9	0.700	0.833	22	0.425	0.544
10	0.648	0.794	23	0.416	0.532
11	0.618	0.755	24	0.407	0.521
12	0.587	0.727	25	0.398	0.511
13	0.560	0.703	26	0.390	0.501
14	0.538	0.679	27	0.383	0.492
15	0.521	0.654	28	0.375	0.483
16	0.503	0.635	29	0.368	0.475
17	0.488	0.618	30	0.362	0.467

Demonstrates understanding of result and its possible limitations.

Figure 11 shows that with 10 pairs of data a result of above 0.794 could be considered to be very significant and so there is less than one percent chance that the calculated result, 0.885 occurred simply by chance. Hence it can be seen that there is a correlation and that people feel safer where the environmental quality is higher. However as respondents have been asked to *imagine* how they would feel at night these results might not be totally reliable. Looking at data more closely it can be seen that there are differences between people who have lived in the city all their lives and have an insider perspective and those who have moved in relatively recently or rarely go into Liverpool at night and are less familiar. These people have an outsider perspective and are often more wary. Age of respondents did not seem to make a lot of difference but there was a tendency for people to recognise an area and link their response to their past experience – Concert Square (site 4) seemed to be viewed more positively by younger people whilst some older people were not worried by site 2 as they viewed it as a quick short cut to get the train after a show at the theatre.

An open question was included in the perception survey, people were asked to give 5 words to describe how they felt about visiting Liverpool city centre at night. This gave some interesting qualitative data which is presented in a wordle or word cloud which gives emphasis to the words that were used most often.

Clearly a lot of people questioned thought that Liverpool at night was a vibrant, lively and exciting party place with a fun atmosphere – dancing, loud music etc. However a number of more negative themes come through such as unsafe, drunks, drinking and crowds.



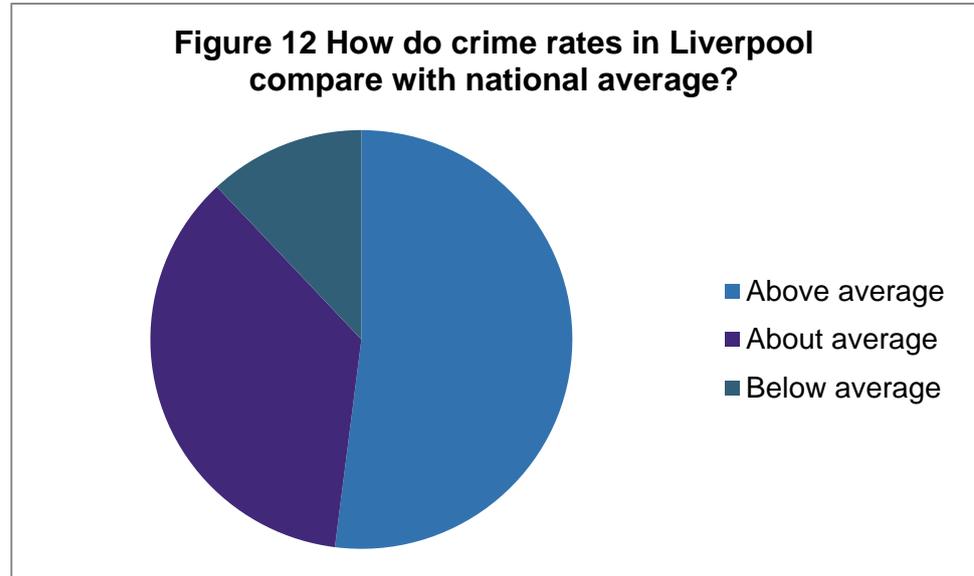
Demonstrates some knowledge and understanding of an alternative technique for displaying data.

Variety of appropriate data presentation techniques are integrated into text.

Attempts to analyse data with reference to secondary sources and relate to purpose of enquiry. Some awareness of limitations.

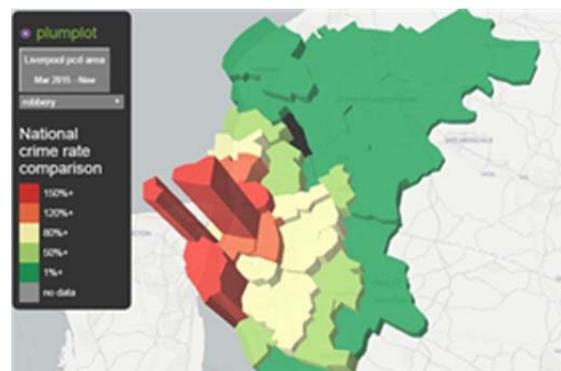
### 3. There is a difference between the perception of safety and actual crime figures in the centre of Liverpool

As part of the perception survey respondents were asked whether they thought crime in Liverpool was higher than average for the UK, about average or below average. The results were:



Comparing these results to official sources is interesting. Apparently ‘Liverpool has the 21st highest crime rate in the country’ but is ‘much lower than in other northern cities such as Manchester, Newcastle and Burnley’ The crime rate in Liverpool is still high, with 266 crimes per thousand people in 2015-6 and this is 78% higher than the national average of 149. So the largest proportion of people questioned (52%) were correct. Anti-social behavior is a significant problem in Liverpool. Not only is it the most recorded crime, the rate of 94.68 crimes per 1000 people is almost double the national average of 49.55. (Verisure website). However as Liverpool is a large urban area it would be expected to have a higher crime rate than rural areas or small villages. Some other types of crime such as robbery are significantly lower in Liverpool than nationwide. As can be seen in figure 13 not all areas of Liverpool experience high crime rates so people who said about or even below average might have come from those areas.

**Figure 13 Crime rates are typically higher in the centre of Liverpool than in the suburbs and also higher than the national average according to the Liverpool Echo (source).**



Using the police crime figures and interactive map it was possible to get more accurate and detailed figures on crime for the areas studied in this investigation.

Results of perception exercise:

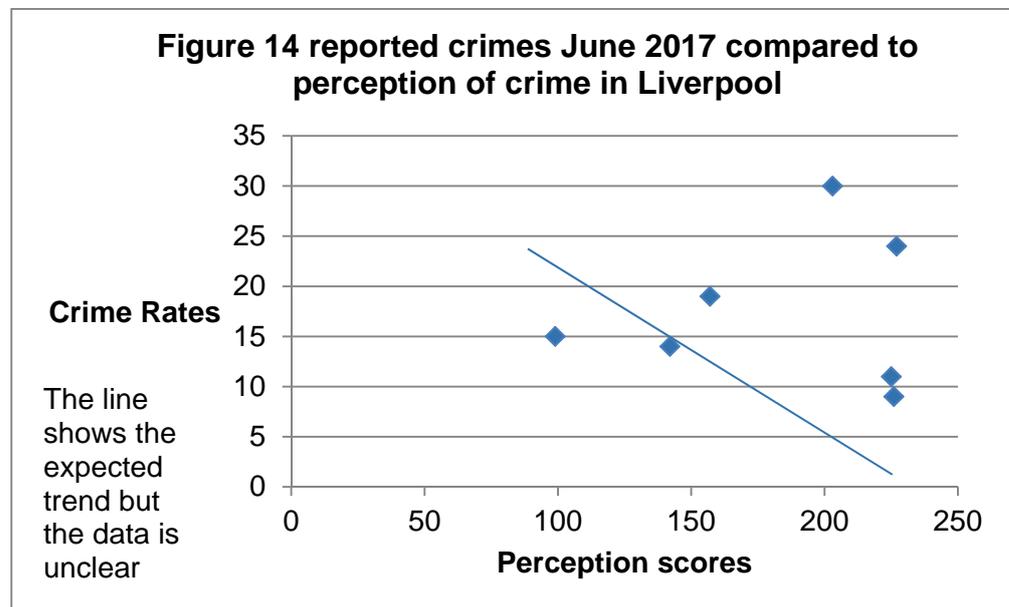
Site	Street	Total Score	Crime statistics June 2017
1	Lime Street main approach	251	9
2	Lime Street/Empire Theatre	201	
3	Colquitt Street	99	15
4	Concert Square	203	30
5	Hanover Street/College Lane	157	19
6	Queen Square	225	11
7	Cavern Walks	142	14
8	South John Street	227	24*
10	Paradise Street	227	
9	Leisure terrace/Chevasse Park	243	n/a

\*Includes 11 crimes of shoplifting which are not crimes which affect other visitors to the area in the same way as muggings etc so the crime rate may be higher than strictly relevant. In areas 1 & 2 and 8 & 10 the crime rates were only given for the combined area.

Some awareness of insufficient data for this technique to be very useful.

Some attempt to view results in context of area.

Aware of limitations of secondary source used.



The scatter graph is rather confusing. High perception scores link to an area considered to be safer so the expected or obvious trend is the one shown by the line however this was true for only around half of the sites shown. Areas such as Concert square were perceived to be quite safe but actually had high crime figures. This may be because the square itself was busy and had good visibility but in order to reach it there were many poorly lit and narrow roads with concealed doorways and potential for mugging etc. Also the main activity in the area is drinking which can make people more vulnerable to crime. Police crime figures also recorded the number of actual crimes that took place and not the number per 100 or 1000 visitors so some figures may look misleadingly high.

Area 4: clear ability to write up field results clearly and logically.

Draws on evidence to make clear conclusion whilst aware of limitations of data.

Aware of ethical dimension.

Some evaluation of methods using in investigation and how they could have affected data collected.

Valid conclusions reached for each sub-hypothesis although overall conclusion is lacking.

## Conclusion and evaluation

This report set out to investigate the relationship between perceived safety and environmental quality in central Liverpool. The first consideration was whether crime reduction and safety features had been incorporated into the new development of Liverpool One but was less obvious in other areas. The mapping exercise and secondary sources confirmed the expectation that emphasis was put on safety at the planning and construction stage of Liverpool One. This is hardly surprising as the Safer Places report was widely available at the time and also because Liverpool Council were aware of the failings of the shopping centre in the 1980's and 1990's and were looking to put things right and to attract people back to Liverpool. Safety features such as those recorded were planned in and crime rates seem to be relatively low given the vast number of people that visit the area. There were a number of drawbacks with this technique, for example it was difficult to see security cameras and they are often deliberately hidden and some roller shutters might have been disguised in the daytime. However the overwhelming amount of evidence to support the trend suggests that the hypothesis was correct.

An ethical issue touched on in this investigation concerns rough sleepers, the homeless and drunks. Although the Safer Places report does suggest that the existence of people sleeping on the streets can lead to higher crime rates it should not be assumed that every rough sleeper is a potential criminal or drunk. Some places such as Southwark in London have gone as far as to put spikes in sheltered areas to make it impossible for people to sleep there. Liverpool does not appear to have done this and when collecting information a conversation between a street cleaner and a rough sleeper was overheard in which it became clear that a certain doorway was seen as a regular pitch and almost an entitlement. There was no attempt to move the sleeper on. This took place near St John's market. In Liverpool One no rough sleepers were observed, and it could be assumed that people would quickly be moved on by security.

The second hypothesis 'People feel safer in areas where the environmental quality is better' considered several sources of data. Again there was strong evidence to suggest this was true and impressions were backed up by statistical calculation however different age groups often had different feelings and this is an area of the investigation that could be looked at more closely if time allowed. A weakness here was in asking people to imagine what areas were like at night, especially areas they were not familiar with. Some people questioned visited Liverpool only occasionally and that could have been an early question to ensure the right people were questioned. The systematic sample did not work very well as people were reluctant to stop in the busy areas of the city and so eventually anyone willing to answer was included which could have led to some bias.

The final hypothesis relied on comparing perception scores with real rates of crime in parts of Liverpool. There were some problems in getting accurate data for specific streets and sometimes areas were combined – for example crime was recorded near the bus station (near sites 8 & 10) but it was unclear if some of this occurred nearer to the shops. Assumptions had to be made, also shop lifting was recorded where the person was caught although the actual crime may have taken place several minutes away. Results for this hypothesis were less clear with some sites following the expected trend but others clearly not. A weakness with this hypothesis was the low number of sites used (especially as data was not available for one of them and two other pairs had to be combined) and the fact that crime figures were used for June 2017 only. At least 20 sites,

and an average of crime data over a year, might have revealed a clearer picture.

Overall this report has made a clear investigation into perception of crime and the relationship to environmental quality in Liverpool. Although some techniques were less successful there was enough information to be confident about at least two of the three hypotheses. Weaknesses in data collection techniques have been identified and rectified where possible and secondary sources have been used to support ideas.

The End.

## **Bibliography**

AQA Geography Human Geography – edited by Simon Ross et al (2016) Oxford University Press

AQA A-level Geography fourth Edition – Malcom Skinner et al ( 2016) Hodder Education

Geography Student Book – Ann Bowen et al (2016) Cambridge University Press  
Interactive crime map - Police.uk

‘Safer Places – The Planning System and Crime Prevention’ – Home Office 2004

Liverpool One official website – liverpool-one.com

# Commentary

Investigating the relationship between perceived safety and environmental quality in Liverpool city centre

## Area 1: Introduction and preliminary research (10 marks)

### To define the research questions which underpin field investigations. (AO3)

Page 4 links the investigation with 2 relevant areas of the specification: 3.2.3.1 Urbanisation (and particularly urban resurgence and regeneration) and 3.2.3.3 Social and economic issues associated with urbanisation, and explains briefly how this is relevant to the chosen area. This is also explained in the CRF where reference is also made to the study of a local place (3.2.2.4), and the concepts of social sustainability and liveability (3.2.3.8), which have a brief mention later in the investigation. On page 5 three sub-hypotheses are stated which relate to the aim and can be clearly tested in the field with use of primary and some secondary data.

Level 3 (high): A research question is securely identified with is explicitly linked to the specification.

### To research relevant literature sources and understand and write up the theoretical or comparative context for a research question. (AO3)

Some reference is made to the 'Safer Places' report from the Home Office, 2004 and this is continued into the methodology and analysis sections showing good understanding of the concepts therein and their application to the area of investigation. Occasional reference is made to other sources such as police data on crime.

Some attempt has been made to convey the historical and economic context to the study area and set the scene for the Investigation but clear links are not always made and this section is perhaps over-long with some deviation from the aim of the investigation. Basic location detail given including maps. Links to bibliography implied but not always specific.

Level 3 (low): generally focused use of relevant literature sources.

Level 3

7 marks

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## Area 2: Methods of field investigation (15 marks)

**To observe and record phenomena in the field and devise and justify practical approaches taken in the field including frequency/ timing of observation, sampling, and data collection approaches. (AO3)**

Appropriate methods selected to give both quantitative and qualitative data. Some methods clearly justified along with explanation of sites chosen and these were suitable in number and location. Pilot study carried out for the perception study which then led to change of method to include female respondents only. Some awareness of sampling method. No mention of sample size. Some specific justifications.

Level 3 (low): focused use of appropriate observational recording and other data collection approaches including sampling. Some justification of data collection approaches.

**To demonstrate practical knowledge and understanding of field methodologies appropriate to the investigation of human and physical processes. (AO3)**

There is clear knowledge of the methods employed, particularly in relation to the Perception Study and the Environmental Quality survey. Explanation of methods is supplemented with illustration of survey types. However there is some inconsistency in level of detail given with the earlier part being the weakest.

Level 3 (low): clear demonstration of practical knowledge and understanding of field methodologies appropriate to the investigation of human and physical processes.

**To implement chosen methodologies to collect data/ information of good quality and relevant to the topic under investigation. (AO3)**

There is clear evidence of collecting the relevant data based on the methodologies described and in some places very detailed observations have been made demonstrating further understanding. Some of the data is based on an unknown, and possibly small, sample size with an inconsistent sampling technique. The data was all collected on one day whereas it would have been advantageous to collect some in the evening, or at least visit at that time, but this is acknowledged in the report.

Level 2 (high): intermittent implementation of chosen methodologies to collect data of good quality and relevant to the topic under investigation.

Level 3

8 marks

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### Area 3: Methods of critical analysis (20 marks)

**To demonstrate knowledge and understanding of the techniques appropriate for analysing field data and information and for representing results and show ability to select suitable quantitative or qualitative approaches and to apply them. (AO3)**

Data is presented in a variety of formats including a comparative bar graph, proportional symbols map scatter graph, pie chart and word cloud. These are appropriate to the data and well executed with some use of ICT. Data presentation is integrated into the text and referenced and often illustrated by annotated photos. Statistical analysis is carried out using Spearman's Rank and the significance of the result is stated once compared to established levels of significance. Data is presented in a variety of formats including comparative bar graph, proportional symbols map, scatter pie hart and word cloud. ICT is used competently in places.

Level 3: precise demonstration of knowledge and understanding of the techniques appropriate for analysing field data and information and for representing results.

**To demonstrate the ability to interrogate and critically examine field data in order to comment on its accuracy and/or the extent to which it is representative, and use the experience to extend geographical understanding. (AO3)**

Data is interpreted and analysed in a logical sequence for each sub-hypothesis with some links to how results link to wider understanding and how they fit into the context of modern urban areas. Some awareness of possible inaccuracies of crime data is evident and also over reliance on observation only. Some opportunities for analysis were missed, eg the effect of age on perception of crime was only briefly alluded to and the idea of insider and outsider perspectives was also mentioned but not investigated more fully.

Level 3: clear ability to interrogate and critically examine field data in order to comment on its accuracy and/or the extent to which it is representative.

**To apply existing knowledge, theory and concepts to order and understand field observations. (AO2)**

The student shows some ability to apply knowledge and understanding of geography to comprehend the results of the investigation. There are links made between the relevant literature in Area 1 (Safer Places report) and findings and also national trends but these are at times simplistic.

Level 2 (high): implicit application of existing knowledge, theory and concepts to order and understand field observations.

Level 3

11 marks

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## Area 4: Conclusions, evaluation and presentation (15 marks)

### **To show the ability to write up field results clearly and logically, using a range of presentation methods (AO3 strand 3)**

The investigation is written up clearly and logically with appropriate use of a variety of methods of presentation which are imbedded into the text and frequently referred to. An executive summary at the outset gives a solid overview of the project and its sequence.

Level 3: clear ability to write up field results clearly and logically, using a range of presentation methods.

### **To evaluate and reflect on fieldwork investigations, explain how the results relate to the wider context and show an understanding of the ethical dimensions of field research (AO3 strand 2)**

The weaknesses of data collection for each sub-hypothesis is outlined. There is a brief mention of how work could be extended to consider effect of positionality on perspectives. Ethical dimension, in relation to rough sleepers, is mentioned in methodology.

Level 3 (low): secure evaluation and reflection on the fieldwork investigation. Clear understanding of the ethical dimensions of field research.

### **To demonstrate the ability to write a coherent analysis of fieldwork findings in order to answer a specific geographical question and to do this by drawing effectively on evidence and theory to make a well-argued case (AO3 strand 3).**

Student draws on evidence to make clear conclusions whilst aware of some limitations of data. Weighs up evidence for each sub-hypothesis to some extent but final links to theory are a little sparse and an overall statement of conclusion is mostly lacking.

Level 2: partial ability to write a structured analysis of fieldwork findings in order to answer a specific geographical question.

Level 3

8 marks

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## Overall

Area 1: 7  
Area 2: 8  
Area 3: 11  
Area 4: 8

Total: 34

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