

# Rural landscape investigation

## AREA OF STUDY

To complete our rural fieldwork we visited Bowness in the Lake District, North West England. This is a rural area that has experienced change as it is increasingly becoming a popular tourist site.

Why	Risk assessment
1) Close to our school. The river is easily accessible by coach, with available car parking for the coach. 2) Perfect example of tourist honey pot site in a rural location. 3) Low risk of getting lost, as the area of study is reasonably small.	1) Poor weather — to minimise this risk we used the flood risk map (GIS) to identify areas of risk to flooding if there was rainfall. We also checked the weather forecast and had appropriate clothing (e.g. coats). 2) Getting lost — to minimise this risk we all had access to a map, staying in small groups, and had a contact number of the teacher. 3) Slipping/falling — to minimise this risk we ensured that we had the appropriate clothing and footwear with us.

## ENQUIRY QUESTIONS

1	How has tourism affected congestion across the rural location (people/traffic)
2	How has the environmental quality been affected by the change in the rural area?
3	How has the age structure been affected by the change in the rural area?

## DATA PRESENTATION

Wordle to analyse questionnaire data	
Description	The qualitative information gathered from the interviews was input into the wordle online system. A word cloud was then created showing the key terms that were frequently used by interviewees
Benefits	+ it reveals essential words and phrases from the qualitative clearly, showing key trends + it saves time, rather than analysing large qualitative data sets
Limitations	- it is difficult to establish how many times certain words have been used, as they only increase in size, but there is no key - non essential words might be included in the work cloud, even though they are not needed for the investigation (e.g. the, however)

Secondary data — Population pyramid to show the changing population structure	
Description	The data for the population structure of Bowness was put into a population pyramid.
Benefits	+ makes comparisons between data sets, and trends, very easy and clear to read + shows exact numbers clearly
Limitations	- the population pyramid only shows the age and sex of the population, but can not show any other information - the figures are age cohorts (e.g. 0-5 or 10-15), so detail is lost about specific age groups

## DATA COLLECTION

Collecting questionnaire data on the environmental quality, population structure and changing land use within the rural location.

Description	<u>qualitative data</u> . In Bowness we used random sampling to question members of the public about their views towards the environmental quality, population structure and land use.
Benefits	+ using random sampling techniques meant that there was no bias + a large sample site gave us a large range of opinions.
limitations	- The questionnaire data collected was only from a mid week day in October. This is not a popular time for tourists and many people will have been in work on this day. - Completing questionnaires is very time consuming and difficult as many people did not want to answer our questions.

**Secondary data** — Measuring the changing age structure of Bowness using census data from Bowness, the county of Cumbria, and England.

Description	<u>quantitative data</u> . We accessed secondary census data about Bowness, showing information on the % of people in each age category in Bowness.
Benefits	+ allows population data to be gathered that we would not be able to complete from our own study on the day. + collection of data from other sources saved us money and time
limitations	- There is no knowledge of how the data was collected. - The census data is only collected every 10 years, so is out of date.

Measuring the environmental quality of the rural location (bi-polar analysis)

Description	<u>quantitative data</u> . We went to three different areas For each location we graded an aspect of the environment between +5 (very good) and -5 (very bad)
Benefits	+ quantitative data makes it easy to make comparisons + multiple environmental characteristics allows for a range of different characteristics to be considered.
limitations	- very subjective and so may be biased opinions. - only a small range of numbers to choose from, making selections difficult.

Measuring the environmental quality and land use (field sketch)

Description	<u>qualitative data</u> . The sketches showed the environmental quality of areas around Bowness and how the land is being used to cater for tourists and local people.
Benefits	+ allows additional information to be annotated + allows for unimportant information to be omitted
Limitations	- subjective - difficult to make comparisons with other areas

Collecting the traffic flow and people flow data within the rural location

Description	<u>quantitative data</u> . the number of vehicles passing at any one point was recorded. This took place for a 10 minute interval. This could then be compared with secondary data of the area from 20 years ago.
Benefits	- quantitative data makes it easy to make comparisons - multiple locations included in the sample, and data collected throughout the day.
limitations	- when large numbers of people/cars were coming past - sometimes groups of people would pass us multiple times.

## CONCLUSIONS

Conclusion	Evidence for conclusion	Explanation of conclusion
The vehicle count and pedestrian count highlighted that the number of cars and people in Bowness has increased over the past 20 years. It also shows that the largest number of cars and people are concentrated around the lake side, and this decreases as you move away from the lake.	On Lake Road (lakeside count): 2019 — 71 vehicles (in 10 minutes) 2000 — 44 vehicles (in 10 minutes) On Crag Brow (high street away from lake): 2019 — 65 vehicles (in 10 minutes) 2000 — 51 vehicles (in 10 minutes) On Rayrig Road (away from high street and lake): 2019 — 30 vehicles (in 10 minutes) 2000 — 9 vehicles (in 10 minutes)	As Bowness has become more and more popular as a tourist resort, the amount of cars and people in the area has increased from 20 years ago. This may be as a result of (1) advertising campaigns to attract people to the area, (2) people have a greater work-life balance, so are able to visit these locations more (3) people having greater affluence and disposable income to spend on these breaks. The highest concentration of people/cars is around the lake, indicating that this is the main natural attraction of the area.
The environmental quality has been affected in some of the areas across Bowness, although management techniques have minimised this in the most popular areas.	In the main tourist area (boat cruise terminal) there was high levels of noise pollution (score = -4), litter (score = -3) and air quality (score = -3). Slightly further away from this popular area (at Cockshot Point) the results were lower noise pollution (score = 3), litter (score = 1) and air quality (score = 2). The questionnaire results highlighted that people thought that litter and noise pollution was an issue in Bowness.	The environmental quality of Bowness has been affected significantly in the most popular areas. The number of cars and people has resulted in litter, noise and air pollution in these areas. It has also resulted in animals being forced away from the area, scared away by the tourists. Moving further away from the main tourist site, the environmental quality improves.
The population structure of Bowness has changed. The amount of people aged over 60 has increased in Bowness, whereas the amount of people aged 20-40 has decreased.	Median age in Bowness = 48 years old Median age in England = 39 years old  Mean age in Bowness = 45 years old Mean age in England = 39 years old	Many of the younger people in Bowness have been forced to leave the area due to increased house costs. This has been as a result of the area becoming more and more popular and so greater demand for housing. Older people view the area as a quiet and peaceful area in which to retire, increasing the average age.

## EVALUATION

Success	Limitations
The questionnaires were taken from 50 members of the public. This was a large sample group which meant that the results were reliable. The environmental quality survey was taken numerous times across different parts of Bowness, and an average score was then taken. This meant that an accurate representation of the area was given. Most of the data was collected by primary data collection methods, ensuring that the results were therefore reliable. Random sampling techniques were used to collect data for the questionnaire. This ensured that there was no bias in the results. Stratified sampling techniques were used to select locations to complete the environmental quality survey. This ensured a range of locations (tourist and residential) were included as part of the study.	The primary data collected was only from a mid week day in October. This is not a popular time for tourists and this may have affected the results. (it was just a snapshot of that one day) The secondary data was collected by the police and crime agencies. This will have had an impact on the results, as we don't know how or why this data was collected. The questionnaire was taken using random sampling. This meant that we could not be sure that a fair representation of people were included in the sample group. The environmental quality survey was subjective and based on our own opinions. This affected the overall reliability of the results. When completing the land use survey, it was difficult to determine whether the building was a local or tourist shop/service. This ultimately affected our results Time limitations on the day meant that some of the data collection activities had to be rushed.

## GIS

GIS is a digital way of presenting maps. It uses layering to present information. In our investigations we used flood risk maps to assess whether it was safe to visit the area on the days we visited. We also use Google maps to check for traffic and also the quickest and safest route for our journey. Google maps was also used to decide on the location of the different sites we visited.

