DNA

Friday, 16 October 2026

Fieldwork Follow-Up - Llandudno



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Human Fieldwork Follow-Up

How does tourism impact the local economy and environment in Llandudno?

What data collection methods did we use?

Land Use Survey

-We identified the different types of land use and buildings, categorised them and identified who used them most (tourists, locals or both).

Questionnaire

- We asked 13 questions to assess the impact of tourism on the local economy and environment of Llandudno.

Environmental quality survey (EQS)

- We assessed the environmental quality at various locations around the town, exploring how tourism and urban land use influence the local environment.

What data collection methods did we use?

Llandudno Land Use Survey

METHOD

At the two following locations walk the length of the street identified listing:-
a) each different land use or building eg Victoria Hotel / Sainsburys / car park
b) the category of land use eg tourism residential / supermarket / transport facility
(if you struggle with this you can complete at school as long as you have column a completed)
c) and identify if it is used **MOSTLY** by tourists T locals L or both B

Location 1 The Promenade (between measuring points 1- 4 from beach survey)

Name of land use / building	Category of land use	Used MOSTLY by Tourists / Locals / Both **T / L /B**

Questionnaire: The Impact of Tourism on the Local Economy and Environment in Llandudno

Section A: General Information

1. What is your age group?
☐ Under 18 ☐ 18–29 ☐ 30–44 ☐ 45–59 ☐ 60+

2. What is your gender?
☐ Male ☐ Female ☐ Prefer not to say ☐ Other

3. What is your relationship to Llandudno?
☐ Resident ☐ Local business owner ☐ Tourist ☐ Local employee ☐ Other (please specify): _____

4. If applicable.....How long have you lived or worked in Llandudno?
☐ Less than 1 year ☐ 1–5 years ☐ 6–10 years ☐ Over 10 years ☐ Not applicable

Section B: Economic Impact of Tourism

5. In your opinion, how important is tourism to Llandudno's local economy?
☐ Very important ☐ Important ☐ Neutral ☐ Unimportant ☐ Very unimportant

6. Has tourism created more job opportunities in Llandudno?
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

7. Do you think tourism has increased the cost of living (e.g., rent, prices, services) in Llandudno?
☐ Yes ☐ No ☐ Not sure

8. How much do you think local businesses benefit from tourism (e.g., shops, restaurants, attractions)?
☐ A great deal ☐ Somewhat ☐ Very little ☐ Not at all

9. In your view, does tourism revenue outweigh its potential drawbacks?
☐ Yes ☐ No ☐ Not sure

Section C: Environmental Impact of Tourism

10. Do you think tourism has affected Llandudno's natural environment (beach, Great Orme, town cleanliness, etc.)?
☐ Positively ☐ Negatively ☐ No noticeable effect ☐ Not sure

11. Which environmental issues do you associate with tourism in Llandudno? (Tick all that apply)
☐ Litter and waste ☐ Traffic congestion
☐ Noise pollution ☐ Damage to coastal or wildlife areas
☐ Energy and water ☐ None of the above

12. How well do you think local authorities manage environmental impacts from tourism?
☐ Very well ☐ Adequately ☐ Poorly ☐ Not sure

13. Do you think sustainable tourism practices (e.g., eco-friendly hotels, recycling, public transport) are being promoted effectively in Llandudno?
☐ Yes ☐ Somewhat ☐ No ☐ Not sure

Environmental Quality Survey (EQS) – Llandudno

To assess and compare the environmental quality of different locations in Llandudno, exploring how tourism and urban land use influence the local environment.

Instructions

1. Choose several sites around Llandudno (e.g., North Shore Promenade, Mostyn Street, Peir, named residential street).

2. At each site, observe and rate each environmental factor below.

3. Use the 1–5 scale, where: 1 = Very poor 2 = Poor 3 = Fair 4 = Good 5 = Excellent

Environmental Quality Survey Table

Site Location	Air Quality	Noise Level	Cleanliness	Building Condition	Traffic & Congestion	Greenery	Attractiveness	Overall Score
Site 1: Promenade	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	____
Site Location	Air Quality	Noise Level	Cleanliness	Building Condition	Traffic & Congestion	Greenery	Attractiveness	Overall Score
Site 2: Mostyn Street	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	____
Site Location	Air Quality	Noise Level	Cleanliness	Building Condition	Traffic & Congestion	Greenery	Attractiveness	Overall Score
Site 3: Peir	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	____
Site Location	Air Quality	Noise Level	Cleanliness	Building Condition	Traffic & Congestion	Greenery	Attractiveness	Overall Score
Site 4: _____ Residential street your choice	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	☐1 ☐2 ☐3 ☐4 ☐5	____

Was our data collection successful/ how could we improve?

Land Use Survey

Strengths - More than one location surveyed. *2026 Strength* we had a category list to use

Weaknesses - Not everybody used the same categories of land use.(2025) 2026 only 2 locations surveyed.

Improvements -To provide definition of the categories e.g. Accommodation, Restaurants, Banking etc… (2025) 2026 could have done 3rd location further away from the beach / centre of town.

Questionnaire

Strengths- Wide range of questions asked that related to the research question.

Weaknesses- Each learner only had one questionnaire to complete, meaning the data collected was limited.(2025) 2026 some groups did not ask all 10 people, some people responded to multiple questionnaires

Improvements- Each learner to ask 5 people to complete the questionnaire and to share data with other groups to increase the sample size.(2025) 2026 ensure each person we ask has not already answered for another group.

Environmental quality survey (EQS)

Successes- 4 different locations surveyed covering shopping, residential and tourist areas in Llandudno. We used the guide sheet to help our judgements to be more standard across all groups. (2026)

Limitations- Down to individual interpretation, we call this subjective. Therefore, results for the same location may vary from person to person 2025. For 2026 precise locations at each of the 4 sample areas were not identified, this could vary our results. We also did them at different times, traffic could build up during the day.

Improvements- To have a descriptor table that describes each of the different environmental factors and how they would link to the 1-5 scale (Very poor-Excellent). This would allow for more reliable results to be collected. 2025. in 2026 we could have done the EQS at exactly the same time for each group and in precise locations eg outside Costa on Mostyn Street

Data presentation techniques

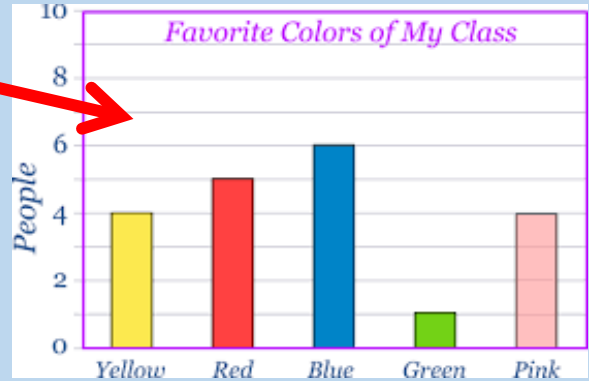
Land Use Survey

-We produced a **Land use map** with a key showing the different categories of land use identified in the two locations we surveyed (Mostyn Street and Promenade).



Questionnaire

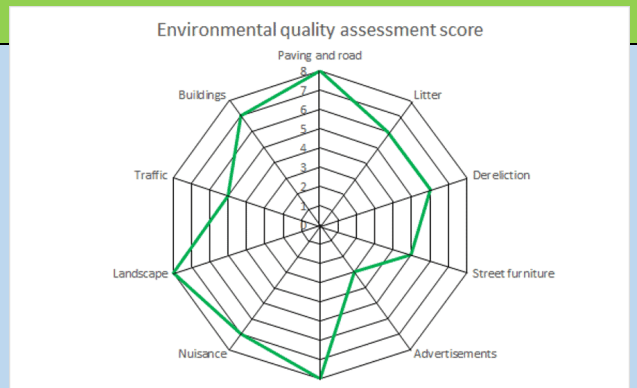
- To present our questionnaire results, we used a range of graphs and charts including… **Pie Chart**, **Bar Chart**, **Line graph.**

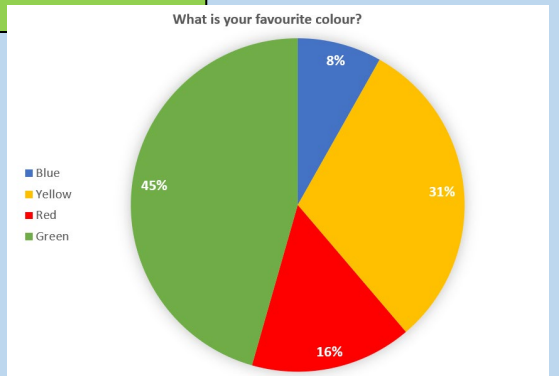


Environmental quality survey (EQS)

- For each location surveyed, we produced a **Radar graph** showing the scores we gave for each category of the environment.







What did we find? (Conclusions)

Land Use Survey

Along the promenade most of the buildings were hotels or self-catering accommodation (Tourism) with the occasional restaurant.

On Mostyn Street (Main high Street) There was more variation, including fast food/restaurants/cafes, Convenience stores/mini supermarkets. Most of these types of land uses were popular with both residents and visitors.

There was a mixture of high street brands e.g. Pavers, Go outdoors, peacocks, Cafe Nero KFC, branded charity shops as well as a range of local independent stores. Many of those were tailored for tourists, e.g. gift shops.

Conclusion- Tourism financially has a big impact on the town and how the land is used.

Questionnaire

The general trend was that people questioned believed that Tourism impacted the local economy positively. Many locals worked in hotels, restaurants and tourist attractions. These are some of the main employers in the area. The benefits are seasonal (Spring- Autumn) whilst tourism does continue over the winter months it is limited.

Another trend was people believed tourism hade some negative impact on the Environment of Llandudno. For example, traffic congestion and littering were areas of concern.

There was not a lot of knowledge/ understanding of Sustainable tourism practices amongst our sample.

Conclusion- The economy was impacted positively and Environment slightly negatively by tourism.

Environmental quality survey (EQS)

From our findings we found that residential areas (student choice) were less congested with traffic, cleaner and less polluted. Whereas Tourist hotspots such as the Pier, Mostyn street and the promenade were…

Mostyn Street- High volume of traffic congestion, noise and air quality issues.

The Promenade- Some litter, problems with seagulls (Litter), Traffic on the main road and limited parking available.

The Pier- Lack of greenery, high level of noise (arcades) and some litter.

Conclusion – Tourism had some environmental impact on Llandudno, although the council deals with these issues effectively, seeking to minimise any negative impact on both residents and visitors.

Overall evaluation of our Human Fieldwork

How does tourism impact the local economy and environment in Llandudno?

Land Use Survey

WWW (What Went Well…)
- Varity of land use locations surveyed, to best represent the different types of land use in Llandudno (Business, residential and entertainment).

EBI (Even Better If…)
- *If the categories for the land use survey were pre-defined, this would allow learners to more consistently categorise the different land use types. (2025)*
- *2026 we had surveyed a third location further away from the beach / centre of town to be better representative of all the types of landuse.*

Questionnaire

WWW (What Went Well…)
- Variety of questions that related that related to economic and environmental impacts of tourism.

EBI (Even Better If…)
- *Bigger sample was needed to make results more reliable- More questionnaires asked to more people. (2025)*
- *2026 Data could be shared amongst groups to increase sample size. Make sure people responding had not already answered for another group.*

Environmental quality survey (EQS)

WWW (What Went Well…)
- 4 different locations including tourist hotspots, residential and mixed sites. Which allowed for results to be representative of the town.

EBI (Even Better If…)
- *2025 Data collection was subjective- no examples of what a poor score for air quality would look like etc… Worded descriptors were needed for each of the 7 categories marked in the EQS (environmental quality survey).*
- *2026 fixed times and locations for the 4 surveys to make them more comparable between groups.*

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Friday, 16 October 2026

Physical Fieldwork Follow-Up

How does sediments size and shape change along Llandudno beach?

What data collection methods did we use?

Beach sediment size and shape Survey

-At 4 locations we took a random sample of 60 (20 at top, middle and bottom) pebbles, measured their length and width and described their shape using Key provided.

Beach profile

- At 4 locations we measured the distance and slope from the top of the beach, down to the water's edge.

For both of these tasks each group did one of the four locations, then data would be shared.

What data collection methods did we use?

Llandudno Beach Sediment Size & Shape Data Collection Sheet

METHOD

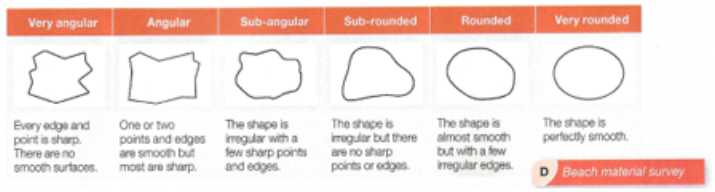
a) At each of the 4 measuring points complete the method below in 3 locations, firstly at the top of the beach, next in the middle of the beach, and finally at the bottom of the beach.
b) At each location randomly select 20 pebbles (close your eyes and pick one up at a time). Measure the length and width of each pebble recording it in the results table.
c) Then using the shape diagram (on the next page) decide what shape each pebble is. Record this information in your data table.

Measuring point 1 (adjacent to concrete jetty pier - end of beach)

Top beach	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Length x width																				
Pebble shape																				
Middle beach	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Length x width																				
Pebble shape																				
Bottom beach	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Length x width																				
Pebble shape																				

Measuring point 2 (first beach shelter walking away from MP1 / the pier)
Measuring point 3 (blue viewing circle walking away from MP2)

Measuring point 4 (next beach shelter walking away from MP3 blue viewing circle)



Llandudno Beach Profile Data Collection Sheet

METHOD

a) Place 1st ranging pole at top of the beach.
b) Looking down toward the sea, walk in a straight line to the point where the **level of the beach changes**. Place the 2nd pole in place.
c) ACCURATELY measure the distance between the two poles with either a tape measure or a meter stick. Record this distance in cm's.
d) Use the clinometer to measure from the top white section of pole 2 to the same top white section of pole 1 record this angle in degrees.
e) Remove pole one, continue to walk toward the sea again when the height of the beach changes place the pole in the 3rd position, measure the distance in cm's from pole 2 to pole 3 and the degrees of the slope. Record these measurements.
f) Continue the process above until you reach the shore line. You may not need to fill in all of the table, it depends on how much the level of the beach changes!

DON'T GET YOUR FEET WET.

Measuring point 1 (adjacent to concrete jetty pier - end of beach)

Pole no.	1	2	3	4	5	6	7
Distance in cm's							
Degree of slope							

Measuring point 2 (first beach shelter walking away from MP1 / the pier)

Pole no.	1	2	3	4	5	6	7
Distance in cm's							
Degree of slope							

Measuring point 3 (blue viewing circle walking away from MP2)

Pole no.	1	2	3	4	5	6	7
Distance in cm's							
Degree of slope							

Measuring point 4 (next beach shelter walking away from MP3 blue viewing circle)

Pole no.	1	2	3	4	5	6	7
Distance in cm's							
Degree of slope							

Was our data collection successful/ how could we improve?

Beach sediment size and shape

Strengths – Simple collection technique that all involved could complete successfully. (Choose 20 pebbles and measure them/ Top, middle and bottom)

Weaknesses – Accuracy was an issue due to lack of motivation to complete 20 pebble measurements at the top, middle and bottom of each location.

Improvement-to improve motivation each group could do 30 pebbles (10 top, middle and bottom) instead of 60, each student needs to measure less pebbles this way. Also, pebbles could be photographed to ensure that the pebbles were being accurately categorised in terms of their shape, this is called quality assurance.

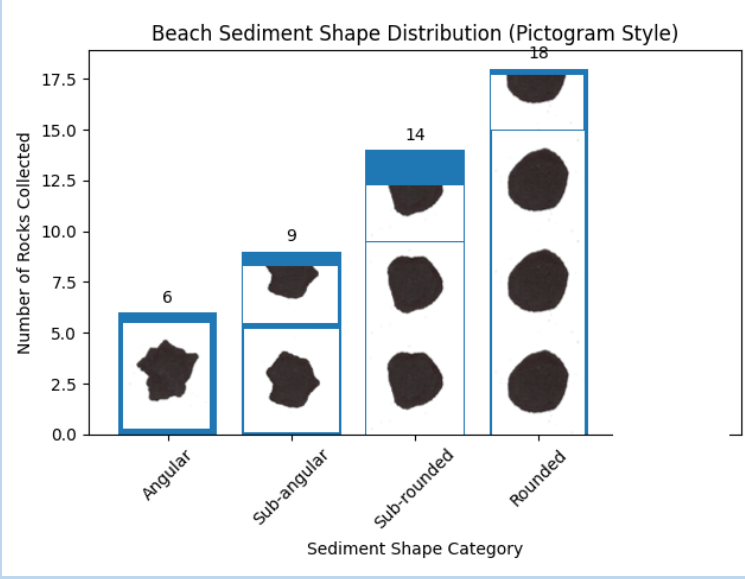
Beach profile

Strengths- 4 Sample sites we clearly identified (Everybody used the same locations)

Weaknesses- Lack of equipment (clinometers some were hand held, some digital) some were more precise than others, some did not work properly this slowed down the process meaning less accurate data was collected. Measurements need to be taken every time the beach gradient changes, not just at the top, middle and bottom of the beach. Some groups measured the angle looking down the beach towards the sea, when we should have measured the angle looking up the beach.

Improvements- Mark the beach in each location where the gradient changes, use flags to mark this. Measure the distance and gradient between each of these locations. This would give a better beach profile with more accurate gradients.

Data presentation techniques



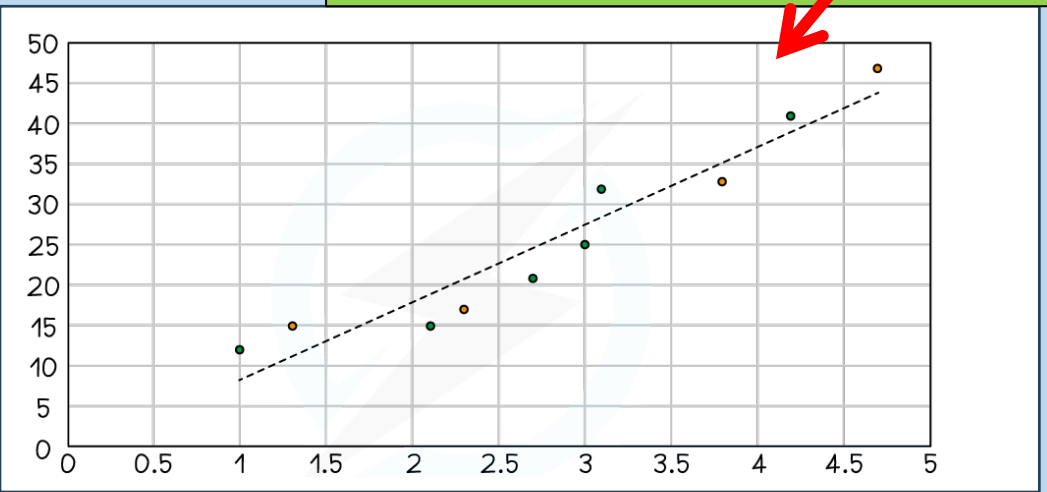
Beach sediment size and shape

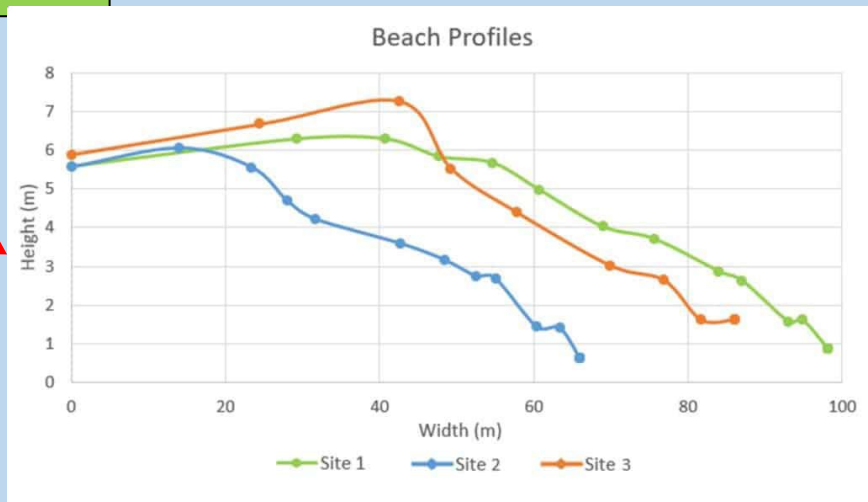
For beach sediment shape, we produced **pictographs** to show the shape of the pebbles we collected.

For sediment size we produced a **scatter graph** for ach measuring point (X4) showing the relationship between the average size of pebbles (Length X Width) and where they were found on the beach (distance from the shore).

Beach profile

Using our results we created **Profile Diagrams** (Which look like line graphs). Showing the length and gradient of the beach.





What did we find? (Conclusions)

Beach sediment size and shape

There was no real change in the size and shape of beach sediment between the 4 measuring points we surveyed. Although, closer to the promenade sediment size was larger and shape was more angular which suggests less erosion occurs here.

Nearer to the sea sediment size was much smaller and much smoother due to the repeated pounding of waves (Hydraulic action and attrition).

*Conclusion- Sediment size and shape **did not** change along the length of the beach but **did** change down the beach profile (towards the sea).*

Beach profile

The gradient of the beach was slightly steeper closer to the promenade and more gentle in its slope nearer to the sea. There was little change in results between the sites 1,2,&3 but at measuring point 4 results showered a steeper beach slope, with more obvious changes in the angle as you travelled from the promenade towards the sea.

Conclusion- The slope becomes steeper the closer to the promenade you get from the sea. The slope of the beach generally becomes steeper the further away it travels from the pier (measuring point 4).

Overall evaluation of our Physical Fieldwork

How does sediments size and shape change along Llandudno beach?

Beach sediment size and shape

WWW (What Went Well…)

- Measuring points were clearly marked/identified meaning that samples collected were similar for each student. Improving the validity of the results. Also, clear descriptors were given to help identify the shape of samples collected.

EBI (Even Better If…)

- If samples were photographed or collected and returned to school this would help to quality assure measurements and shape judgements made..

Beach profile

WWW (What Went Well…)

Technique and use of equipment was modelled clearly so that learners could accurately use the ranging poles and clinometers. Measuring points were clearly marked and identified.

EBI (Even Better If…)

If we had better access to more equipment this would have allowed the process to be faster and more data collected.

The beach needed to be marked where the gradient of the beach changed to allow students to measure the distance and angle at each change, rather than the top middle and bottom approach that we used.

Recent 8-mark fieldwork questions:

To what extent was your primary data collected successful in allowing you to reach a conclusion…

Justify one technique used to present your data…

Evaluate your fieldwork techniques and suggest how they could be improved…

To what extent were the methods you used to collect your data effective….

Suggest how you could improve your data collection to make your results more accurate and reliable…

Evaluate whether your primary data collection was successful in allowing you to draw evidenced conclusions…