

Data Presentation

Card Sort



Annotated Map

Steep sided V shaped valley caused by vertical erosion

Coniferous forest will increase interception and act as a water store increasing the lag time in large rainfall events

High point of 256m marking watershed – land use open moorland



Built up area that could be prone to flooding and will increase surface runoff.

Small tributary from a steep sided valley

Major confluence, from this point there will be a significant increase in discharge which may cause flooding

Positives

- 🌿 Old maps can allow you to compare changes over time
- 🌿 Allows you to explore spatial relationships between features
- 🌿 Good for comparing your data to the wider context

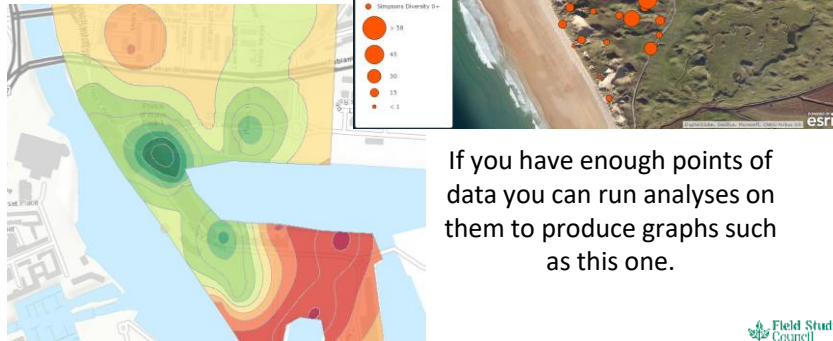
Limitations

- 🍂 Can be difficult to get maps at the correct scale, covering a large area
- 🍂 OS maps contain a lot of information that may not be of use to you
- 🍂 Can be hard to get maps which are up-to-date



GIS – Geographical Information Systems

You can represent your data by proportional size, geo-located to where the data was obtained.



Positives

- Visualise relationships between location and data
- Highlight changes over space and time
- Create engaging data presentation that is very easy to interpret
- High level geospatial analysis

Limitations

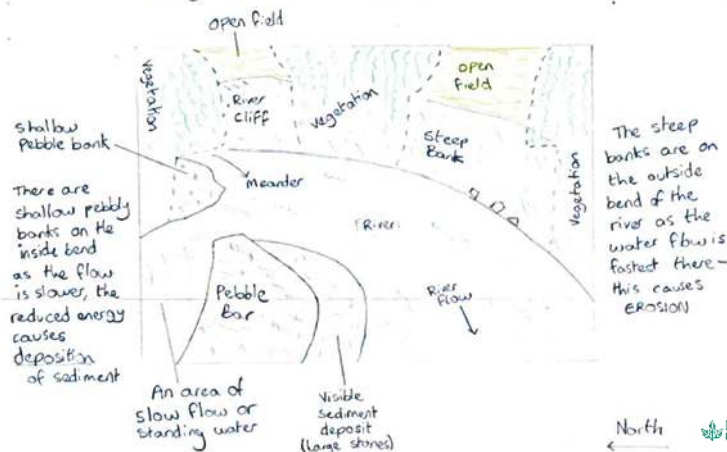
- Relies on accurate coordinates or GPS location to locate on a map
- Some software is complicated to use / may require training.
- If too many layers of data are added to a map it can be difficult to interpret.



Field Sketch

Field Sketch of River Oynore Site 5 -
Methy Mawr on 13/06/15 at 11:30

Mimi Macfarlane



Positives

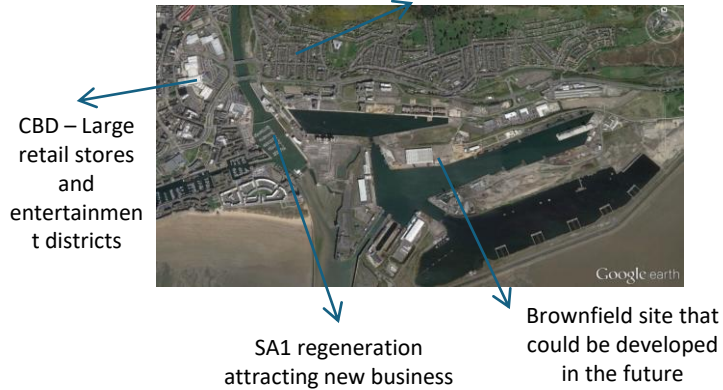
- Can display a large amount of information clearly and concisely
- Can show evidence of deeper understanding of your environment
- Good for analysing data in a qualitative way
- You can omit detail that you feel is not relevant to your enquiry

Limitations

- Scale of items may be altered in the sketch e.g., Drawing them larger/ smaller relative to other objects in the frame
- Can become unclear if you try and include too much
- Sketches are only as good as the annotations made
- Only gives you a snapshot of the landscape at that time

Annotated Aerial Photographs

High density terraced housing that would have been used for dock workers now being gentrified for new developments



Positives

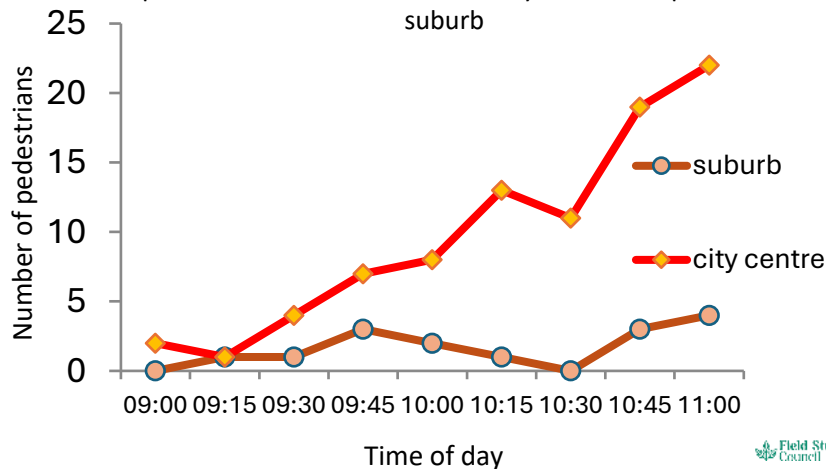
- Good for showing spatial relationships in your study area
- Good for giving a general impression of the landscape
- Many areas of the UK have historical images on Google Earth that can be used to examine change over time.

Limitations

- Can be difficult to pick out features from a bird's eye view
- Resolution may mean that features become distorted
- Aerial photographs from secondary sources may not be up-to-date

Line Graph

Graph to show footfall in Swansea city centre compared to a suburb



Positives

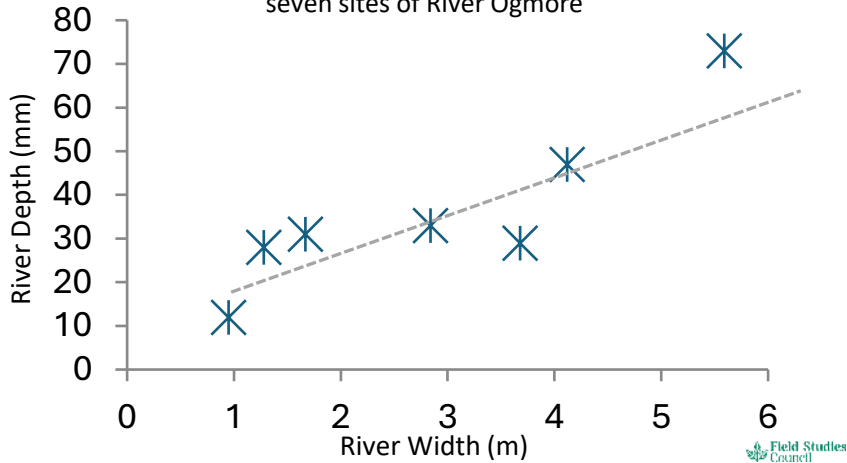
- Standard way of showing a changing time series or a changing trend
- Show correlation between multiple variables
- Shows any obvious outliers/anomalies
- Exact values are shown

Limitations

- Shows 'point to point' changes, so small variations between points may not be represented, thus requiring a good portion of data
- Only used with continuous data

Scatter Graph

Graph showing a positive correlation between width and average depth at seven sites of River Ogmore



Positives

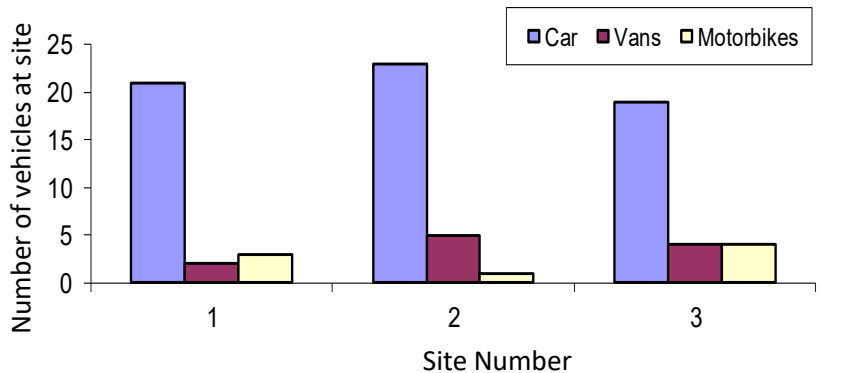
- Shows the relationship between two continuous variables/ data sets
- Can show the data distribution or clustering trends and help you spot anomalies or outliers.
- Helps to visualise whether you have a positive, negative or no correlation in your data

Limitations

- Repeat results can be stacked which can cause issues analysing the data
- If there is lots of data, individual results can be overlooked

Bar/Column Chart

Comparison of transport numbers in locations around Port Talbot CBD



Positives

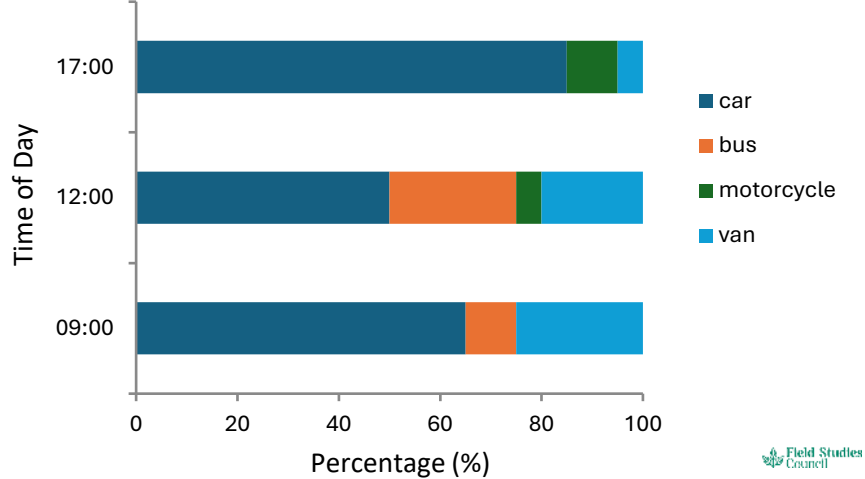
- Used for comparison between discrete categories
- Emphasises changing trends
- Suits data showing a change over time or comparing size
- Can clarify trends better than tables can

Limitations

- Can only use with discrete data
- Best with only one series of data, otherwise it gets difficult to interpret

Divided Bar Chart

Comparison of transport numbers in locations around Port Talbot CBD



Positives

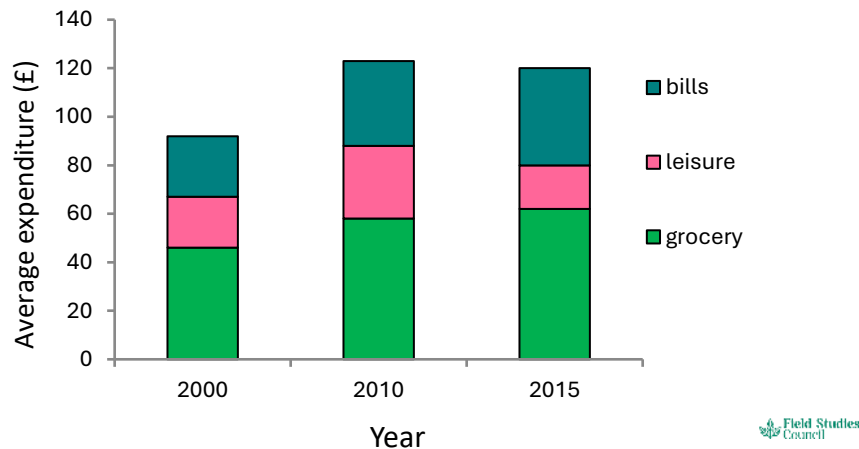
- Great to compare percentages across different times or locations
- Easy to compare lots of categories at once

Limitations

- Can be difficult to draw comparisons when categories start at different levels
- Raw data count is lost. Will not give an accurate reflection if sample size for each category is different

Compound Bar Charts

Change in weekly expenditure of homeowners over time



Positives

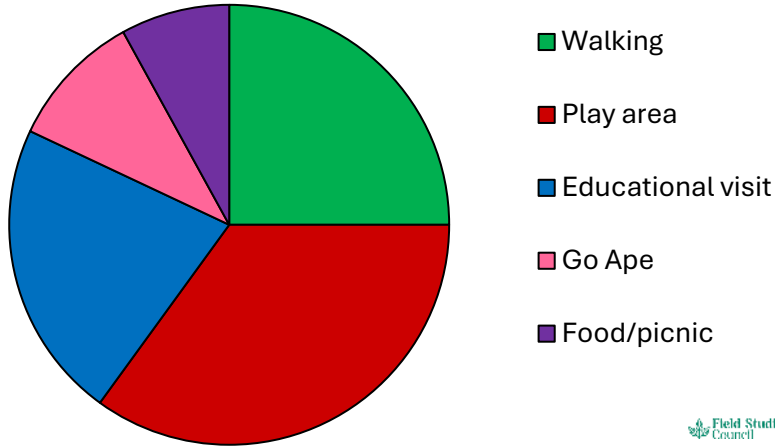
- A simple way of showing part-to-whole relationships
- Shows how a recording can be broken down into its component elements
- Doesn't distort original data

Limitations

- Becomes more difficult to draw conclusions the more segments the bar has
- When you want to compare each segment to another, it is more difficult as they're not aligned on a common baseline

Pie Chart

Land uses in Margam Park



Positives

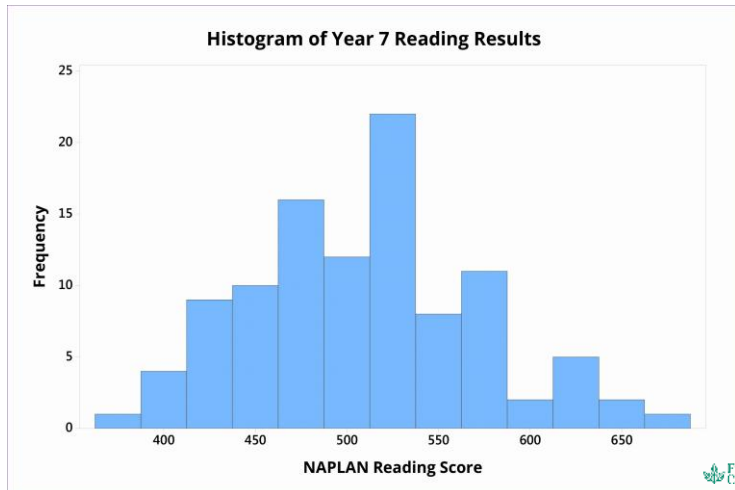
- Used for comparison between discrete categories
- Emphasises changing trends
- Easy comparison between percentages of whole
- Can clarify trends better than tables can

Limitations

- Use only with discrete data
- Best with only one series of data, otherwise it gets difficult to interpret
- Specific quantities are lost through simplification

Histogram

Histogram of Year 7 Reading Results



Positives

- Used for comparison between continuous data
- Emphasises changing trends
- Can help interpret large data sets without oversimplification

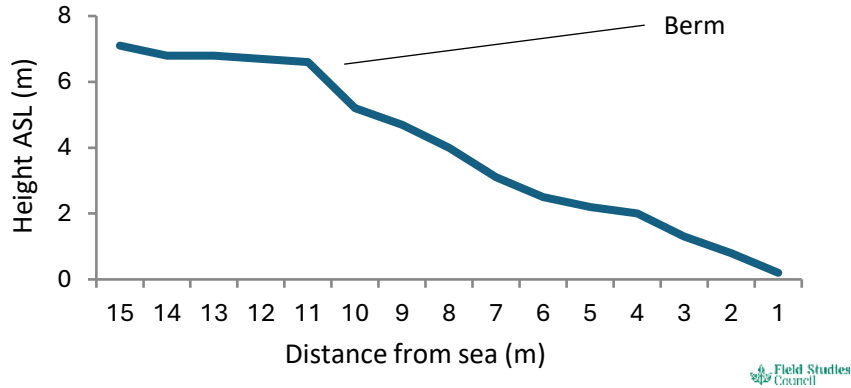
Limitations

- Can only use with continuous data
- Best with only one series of data
- Not as visually clear as other graphs



Beach Profile

Beach profile at Pwll Du Bay



Positives

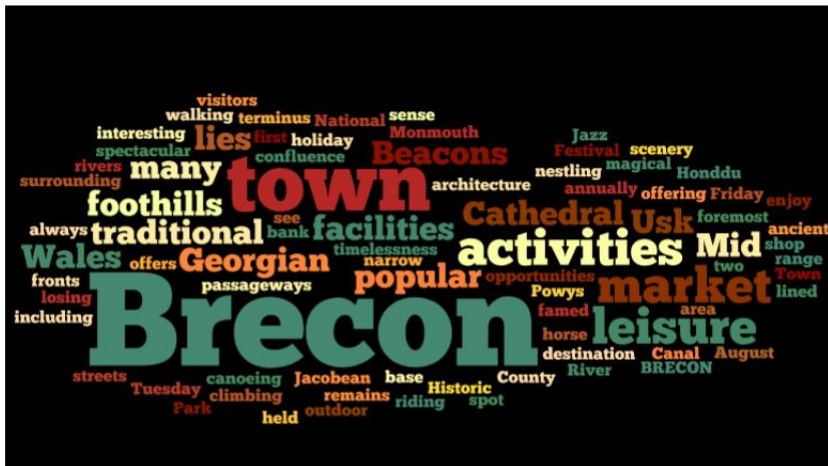
- Clear visualisation of real work features
- Allows opportunities to compare multiple data sets to see changing trends
- Using trigonometry- can work out the cross-sectional area

Limitations

- Can be time consuming if drawing by hand and working out cross-sectional area calculations
- Axis often require adjusting



Word Cloud



Positives

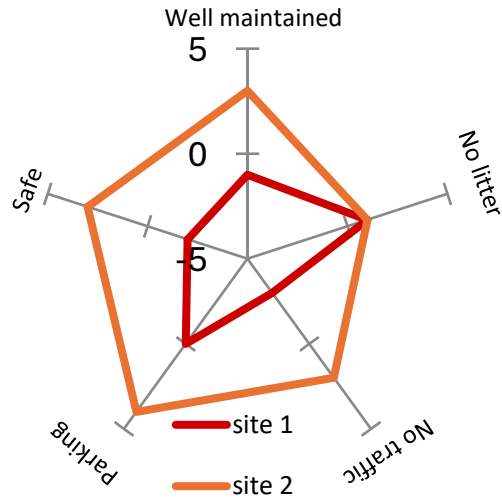
- Easy to see trends and patterns in data with no prior knowledge
- Quick way of presenting qualitative data to communicate your results
- May present patterns which weren't previously obvious

Limitations

- Relatively simplistic and not useful for comparisons
- Relies on consistency with inputting data, ie spelling, phrases

Fig 1. Collation of words commonly used to describe South Wales

Rose Diagram



Positives

- 🌿 The data can have different quantitative scales, which a bar graph cannot accommodate
- 🌿 Allows you to present complex data which can allow detailed interpretation
- 🌿 Allows quick and easy interpretation of results

Limitations

- 🌿 Too many categories can make the interpretation confusing
- 🌿 Visual benefits are lost using data with a large range