**Part 3. Selecting appropriate ways of processing and presenting fieldwork data**

1. Add titles onto the graphs. E.g. Histogram has been done
2. Use the information below to answer the questions. **You need to know advantages and disadvantages of each type of graph.**

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| **Technique** | **Use WHEN DID WE USE** | **Advantages** | **Disadvantages** |
| Bar charts (gap between data bars)**Locational Bar Charts** | To show distinct/discreet data.Can compare a number of different categories.**CAN LOCATE ON A MAP.** PEDESTRIAN COUNT | good visual results / easy to make sense of data. Show relationships between 2 or more variables (if bars are side by side)Show proportions. Can show positive and negative values. Simple to construct and understand. | Plotting too many bars makes it appear cluttered- less easy to interpret. If there is a wide scale (range) of data impact lost as it is difficult to read accurately. |
| Histogram (no gaps between bars) | To show continuous data (so same shading). | Same as bar chart.Also shows continuous data e.g. rainfall on a climate graph.  | Same as bar chart.Hard to show large/small data on same graph due to the scale required.  |
| Divided bar graph | SMOOTHNESS OF PEBBLESLAND USE % FOR EACH AREA | Can visually compare the proportions of a segment between bars.Easy to read if smaller number of classes/ segments are used.Easy to construct if put into %. | More difficult to compare if not converted into %.If too many classes/ segments are created it can be difficult to read |
| Line graph | Shows continuous data e.g. over timeVELOCITY OF THE RIVER AS WE MOVED DOWNSTREAM. | Can show multiple sets of data on the same graph.Shows peaks/troughs and trends/patterns at a glance | Does not show direction of movementProblem if numbers vary greatly/need to choose appropriate scale |
| Annotated Photos /Field sketchesCan be located on a map. | Illustrates change.**CAN LOCATE ON A MAP**CHANGES TO THE WIDTH OF THE RIVERS | Clear visual tool illustrates change over time. Highlight important features. | Can be biased in the photos selected / features included, so not a true representation of the area. . |
| Pie Chart **Locational Pie Charts** | Shows distinct data that can be divided into parts**CAN LOCATE ON A MAP**SMOOTHNESS OF PEBBLES | Quick visual impression of resultsClearly shows larger/smaller groups | Less than 3 segments look simplistic.If many segments a similar size; it is hard to interpret.Difficult to assess %.Difficult to make comparisons between pie charts where there are lots of segments |
| Scatter graph | Shows relationship between two sets of data (correlations)RELATIONSHIP BETWEEN VELOCITY AND WIDTH OR DEPTH OR SMOOTHNESS OR PEBBLE SIZE ETC | Best fit line gives visual guide to strength of relationshipClearly shows anomalies | Need paired dataNeed enough points to show a relationshipBest fit line not always clear |
| Dispersion graphs | Shows range of a set of dataSIZE OF PEBBLES LONG AXIS.OPIONON ABOUT RIVERSIDE. | Shows if data is grouped or dispersed.Can compare sets of data | Not as good for a wide range of data.  |
| Radar graphs | A way of displaying multiple variable quantitiesENVIRONMENTAL IMPACT ASSESSMENT | Very visual – easy to see patternsEasy to compare data sets as they over lay. | Can be difficult to construct.Can be difficult to read if too many areas plotted.  |
| Cross section area | DEPTH AND WIDTH OF THE RIVER CHANNEL. | Clear visual tool to see whole cross section esp in bends. | Depth sampling may not be accurate enough. |

Quantitative data =

Qualitative data =



Histogram



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WWW:

EBI:

Improvement: