geography
southwest

GCSE Geography Fieldwork

Strand 4

Describing, analysing and explaining fieldwork data.

There are **four** separate sections within this strand;

1. Description, analysis and explanation of the results of fieldwork data.

2. Establish links between data sets.

3. Use appropriate statistical techniques.

4. Identification of anomalies in fieldwork data.

1. Description, analysis and explanation of the results of fieldwork data.

- **Description** is where candidates state what their fieldwork data show, e.g. what information a pie chart is displaying with observations about particular sectors such as which is the biggest sector and which is the smallest sector; patterns, anomalies.
- **Analysis** is where candidates examine the data or components within the presentation method to provide precise information about their fieldwork results, eg range, ratio, mean, mode, trend, percentage increase or decrease etc.
- **Explanation** is when candidates offer meanings for these results.

Within the examination candidates <u>cannot</u> be asked to describe their fieldwork data as any such question would test knowledge (AO1) and understanding (AO2) and there is no scope for assessing these Assessment Objectives in relation to fieldwork.

However, candidates <u>must</u> learn how to describe and analyse fieldwork data as they may be asked *to apply* (AO3) this knowledge and understanding to results that are from an unfamiliar context presented in the form of raw data or graphs or maps within the examination paper.

2. Establish links between data sets.

Candidates are often adept at describing and analysing single sets of information but finding links or connections between data sets is more challenging.

When candidates start to explain their findings from one data set, they might realise that the reasons offered have a connection to another set of results, for example, pedestrian density in an urban area may be linked to environmental quality.

Fieldwork enquiries should be planned to enable candidates to collect appropriate data so that they might look for links between variables (data sets). This does not have to be complicated.

Example

A simple river enquiry, testing the hypothesis *'That changes to the bed load of a river are the result of changes in velocity'* only requires two variables to be addressed and two sets of data to be collected. Candidates can look at the results separately; so they can describe and analyse changes in bed load size, then describe and analyse changes in velocity, and then see if there are any clear links between the results for these two variables.

Within the statistical skills requirements of the specifications, candidates must be able to *'describe relationships in bivariate data'* (think of results that can be plotted on a scattergraph) and the river enquiry suggested above would certainly enable candidates to do this. If enquiries can be planned so that the candidates have to opportunity to establish links between data sets then they would be able to apply the same approach to unfamiliar data sets presented within the examination papers.

3. Use appropriate statistical techniques.

The statistical skills candidates are required to know and to have used at some point within the GCSE course are listed in the specifications. Not all of these skills can be delivered through the two fieldwork enquiries on which candidates will be assessed. Some of the statistical skills will have to be delivered through classroom activities using secondary data in relation to a taught part of the Specification, e.g. calculating percentage increase or decrease in population change over time.

However, any of the skills listed can be assessed within a fieldwork context on Paper 3. Teachers should start with their fieldwork planning at an early stage of the course and identify the enquiry tasks candidates will carry out, then determine the data collection methods and the statistical skills (if any) required to complete the analysis of the fieldwork data collected.

The two enquiries may only address a small number of the statistical skills listed and so the remaining skills must be delivered within the taught units. Whichever statistical skills are incorporated into the fieldwork enquiries candidates must understand **why** these skills are appropriate for the data concerned.

4. Identification of anomalies in fieldwork data.

An anomaly might be viewed as being something that deviates from the norm, but for the candidates it might best be described as being 'an irregularity' within any data they collect or present in graphical or map form. It can be difficult for candidates to identify anomalies in raw data unless these are obvious. However, once the data have been processed and presented anomalies may become more readily apparent. Descriptions of, and explanations for, such irregularities may then be offered.

Candidates do *not* need to remember details about the results of their enquiries. There can be no credit for stating results as this is knowledge (AO1) and there are no knowledge marks allocated for the fieldwork questions. Examiners cannot check the results obtained and so there is little point in candidates spending time learning these results.

Instead, candidates would be advised to identify four key findings about each enquiry.   These key findings are the most important points identified by the results; a focused summary of key information. By reflecting on the importance of the results obtained, candidates are making judgements and thereby addressing (AO3) application.   This also helps them reach conclusions, Strand 5 of the enquiry sequence.

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