12 Direct enquiry methods: social surveys and fieldwork

Enquiry isn't only from books and other secondary texts, but from primary 'real world' sources. This takes place in researching for many curriculum areas, including biology, geography and social studies, but also forms part of the foundation for developing skills in language and mathematics.

The techniques are many and varied. The following are presented to aid consideration of issues for CPD, observation and evaluation.

Often a field of enquiry or investigation will involve the selection of a combination of skills and techniques, both direct enquiry methods and the use of books and other texts written by others. It may also be best carried out through cooperation between various subject specialists. For example, studying how a town is changing (industrialization or industrial decline) may involve:

- a visit to the museum
- interviews with town planners, industrial managers, new inhabitants, trade union activists
- pupils taking photographs and comparing them to historic photos of the same spot
- questionnaires
- reference to an earlier census
- making a map.

An investigation should begin with initial stimulus to engage the class – or it may arise from an issue which pupils have raised. There will need to be considerable discussion and planning, including identification of some problems or issues. Pupils will need some information or instruction on specific enquiry techniques. There may need to be some division of labour among the class, including forming teams and identification of available resources. Consideration also has to be given to ways of reporting back information.

Enquiry methods need not be limited to what is currently the case; they can give rise to conjectures such as 'what would happen if sea level rose 3 metres?' or 'what impact would it have on tourism and species sustainability if water quality could be improved?'

Observation

This will be more focused than simply noticing things on an everyday basis. The focus will depend on the issues identified by pupils, though new ones could arise. Pupils may even have an hypothesis which they wish to follow through.

Observation can be carefully structured (often called 'quantitative') or it may be more open, though related to the focal issues (often called 'qualitative').

For a quantitative approach, clear categories are identified beforehand, and then, after a pilot, the number of each event or object fitting each category is counted. (Sometimes, the number of occurrences within each five minute period is tallied, for example; alternatively, which category of activity is taking place at the end of every five minutes.) An example would be counting what types of vehicle (cars, buses / coaches, goods vehicles) use a road.

A more open form of observation requires brief notes to be taken, and particularly of interesting or relevant incidents, talk, etc. These should be written up within hours of the observation into a more extensive, explanatory account. Sometimes a video or sound recording can be made, provided this doesn't disrupt the event or disturb participants, so that the observer can return to the details. An example would be studying what kinds of conversation people have on a bus.

More specific forms of observation have been developed for particular purposes and environments. For example, in geography or biology fieldwork, this might involve:

- counting and mapping litter or shellfish on a beach
- investigate water quality at different points in a river

These may involve chemical tests, sketching, sampling techniques and so on.

Interviews and questionnaires

Questionnaires need to be more carefully prepared than interviews, but this is worth it if a large sample is needed. Interviews provide more information and are likely to get closer to people's feelings and intentions, but are more time-consuming.

It is easier to work on and summarize the data from a questionnaire if the answers to questions can be easily coded, e.g. given a number or score. However a few open-ended questions can be included.

Interviews can be carefully structured, so that each interviewee is asked exactly the same question, though a 'semi-structured' interview can be more informative which allows follow-up of questions if the interviewer or interviewee wish.

If the chosen approach is pre-planned and tightly structured, there should be a pilot stage which might reveal, e.g. ambiguity in a question, leading questions.

Consideration should also be given to anonymising participants and the location, for example giving them a false name.

If claims are to be made that the sample is typical of a wider population, care must be taken to ensure that a balanced sample is being identified. Alternatives may include an opportunity sample or a more sustained focus on a single case study, but it must be pointed out that, while this may provide more in-depth findings, they are not necessarily representative or typical.

Representing information

It is important to consider this when planning the enquiry, as it can affect data collection. The form of representation will depend on the issues and context, as well as the potential audience. It might include, for example, photographs accompanied by short interview transcripts, showing information on a map, or converting data into a graph.

Some issues for discussion, lesson observation and evaluation

A. Are pupils fully engaged in the purpose of the investigation?
B. Are pupils involved in making decisions about locations, the study sample, and methods?
C. Are pupils becoming aware of a range of possible methods, suitable for different purposes?
D. Are they becoming more skilled in the chosen methods, including reflection and self-evaluation?
E. Are direct methods being supplemented by secondary sources such as books or ICT as appropriate?
F. How is the study developing skills of communication, both verbal and visual?
G. How is the investigation helping develop both subject-specific knowledge and a citizenship orientation?