

# 2h – A Guide to Recording Data in the Field

When geographical researchers plan their data collection, they also plan how the data is recorded in the field. A range of techniques can be used; a simple pencil and clipboard, smartphone or tablet, or recording straight into a GIS package.

The method you use to record the data should suit the environment you are investigating as well as the nature of the data you are trying to record. For example, data from a questionnaire will need to be recorded quickly and efficiently so the respondent is not kept waiting unnecessarily. Equally, depending on the environment you are working in, it may not be appropriate to be carrying electronic equipment which is not waterproof. Additionally, some devices may need a Wi-Fi or mobile data connection to upload data to a web-based site; in remote locations these connections are less likely to be reliable. If you are using a smartphone, tablet or other device, make sure it is fully charged and you have a portable charger.



Before you go to the field site, you need to be prepared for being able to record data in different weather conditions. High winds and strong rain can make recording data more of a challenge and some well-prepared recording equipment for these conditions can ease the role of the researcher. Traditionally, this may involve numerous spare paper data recording sheets and plenty of plastic bags to keep everything dry. However, smartphones can provide you with an excellent means to collate many different types of data in one place without having to juggle lots of different pieces of data recording equipment. Written notes, numerical data, photographs, videos and sound recordings can all be logged on most smartphones and provide an easy, pocket-sized way of keeping all the data in one place. It may be worth trialling the methods you plan on using first before you head to your data recording site. This will allow you the chance to test what data recording methods work and do not work before you are out in the field and are stuck with a technique that appears to have only looked good in the classroom. In some cases, such as those where there are inherent risks associated with the data collection, this level of preparation is essential.



Using GIS in the field to record data is becoming increasingly common. Many smartphones and PDAs have built in GPS systems that allow the user to record the exact grid location of where the data is being collected. This means that in the field, or back in the classroom at a later date, you can use GIS to locate fieldwork data and present it cartographically within the Independent Investigation. You could also consider using survey apps like Survey123 for ArcGIS, Collector for ArcGIS and Fieldwork GB.

Some more technical devices such as decibel meters (also available as an app) and flow meters can be connected straight to a laptop or tablet. This allows data to instantly be downloaded into useable forms such as Excel spreadsheets, from which you can create effective data presentation. Some pieces of data collection equipment may also have data storage devices within their hardware. This enables researchers to have devices run remotely, without the need for first-hand operation. Once the researcher returns to the device, all the data it has recorded in the time period they have been away can be downloaded and used without decoding.

Older data transfer techniques using SMS messaging may still be useful in areas where there is a 2G mobile signal, but no reliable data connection.

As with any part of your data collection methodology, the recording of your data is equally open to evaluation and a good researcher remembers to make a note of justifications and limitations of the data recording methods while in the field, just as they would for the data collection methods themselves.

