

It is impractical for a student undertaking some research to record every piece of data that is possible at a field site. Therefore, as part of the design of a method, students should discuss how much data they plan to collect and the strategy they will use to select which data to record and which to ignore. This is known as a **sampling strategy**.

Generally, the larger the sample size, the easier it can be to find patterns and meaningful results. However, if you aim to make your sample too large, you may find you run out of time or patience to make that number possible.

There are four common sampling strategies:

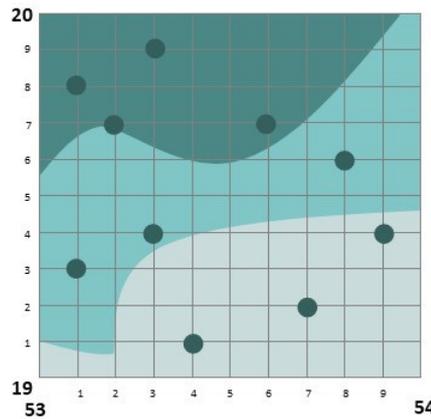
In **random sampling**, the geographer does not follow any particular pattern when choosing which data to record. For example, when selecting locations on a map where data collection will take place, each choice would be unrelated to every other. One advantage of using random sampling is that, if carefully managed, it can successfully remove bias from the data collection method. However, random sampling is not a suitable sampling strategy for situations where the **sampling frame** (the total pool of data) itself is very small.

In **systematic sampling**, the geographer creates a pattern or system to collect the data and sticks to it. For example, when selecting locations for data collection on a map, the sites

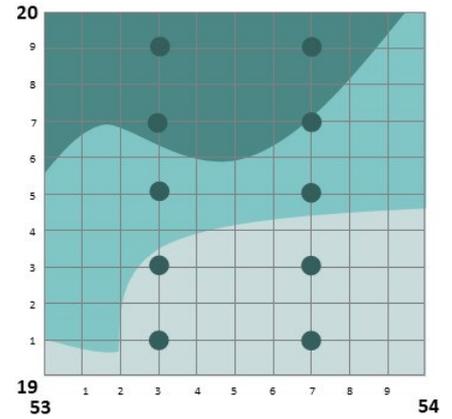
might be equal distances apart or follow a particular grid line. Systematic sampling is, again, seen as being a system that is without bias as samples are selected to a predetermined plan that is followed without compromise. This strategy is very clear and easy for the research student to follow and can be managed alongside a prearranged idea of a sample total.

In **stratified sampling**, the geographer bases their selection on prior knowledge they might have about the area to ensure their sample is representative of the sampling frame as a whole. For example, when selecting data collection points on a map which covers different sub-areas, the number of sites in each area will be proportional to the size of the areas themselves. It is advantageous to use stratified sampling as the results obtained at the end of the study can be said to be truly representative of the overall sampling frame. However, prior to carrying out the data collection, the weighting needs to be calculated from existing secondary data, which may not always be readily available.

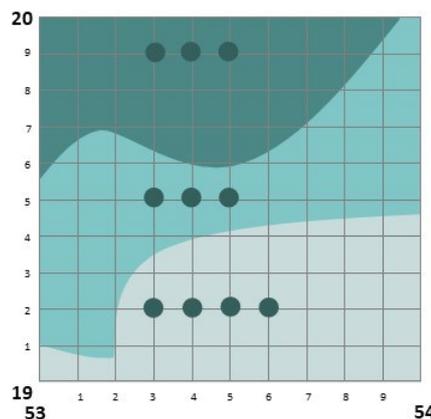
In **opportunistic sampling**, the geographer selects sites as and when they choose in a way that is most convenient to the overall method. This may be that at some points, the selection appears to have quite a systematic approach, while at other times it may appear to be quite random.



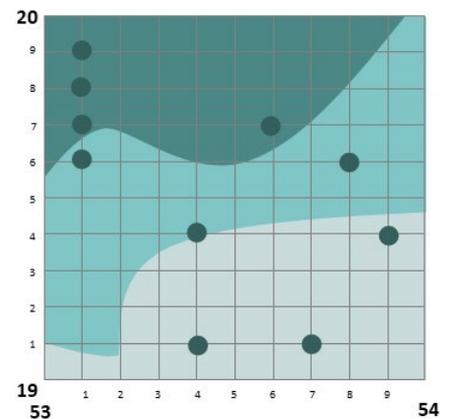
Random Sampling



Systematic Sampling



Stratified Sampling



Opportunistic Sampling