ENOUGH IS ENOUGH

Sampling in Research

Think back to your GCSE Biology. How would you measure the number of daisies in a large field without counting every flower? You'd probably start by marking out a small section of the field... in other words, you'd start with a small sample. Media studies research often involves the collection of data using methods such as surveys or interviews, but when the population is very large, a sample can be selected for data collection and analysis using a suitable method (*sampling*).

Before we start the sampling process, we need to define the target population from which we will draw the sample, the sample size, and the sampling method. In quantitative research methods the aim of this process is to draw a sample that is representative of the target population so that the results of the data analysis can be generalised. There are two ways of sampling: *random* (or *probability*) sampling, where each element of the target population has equal probability of being selected and we can apply statistical methods to the data, and *non-random* (or *non-probability*) *sampling* which is usually used to select cases which are then analysed in depth. In *non-random sampling* the sample is determined by the purposes of the study and it is not representative of the population.

There are various random and non-random sampling methods and each has advantages and limitations. The suitability of the sampling method and its correct implementation play a key role in the reliability of results.

KEY IDEAS

There are several methods of random sampling:

- With s*imple random sampling* we obtain a sample by assigning sequential numbers to all the elements of the target population. We then produce random numbers equal to the sample size and use them to select the sample.
- *Systematic sampling* uses sampling intervals to select a sample from a list which contains all the units in the target population. This method, however, isn't suitable if there is a pattern in the list.
- *Stratified sampling* divides the target population into mutually exclusive sub-groups ('strata'*)*, relevant to the subject of the research, and we draw a random sample from each stratum. This method is useful in cases when we don't want to miss any small percentages of the population.
- When the target population is dispersed, *cluster sampling* can be used. We divide the population in 'clusters', which are natural groups such as towns, schools, neighborhoods, for example, and then we select a random sample within the clusters. This method can involve more than two stages but it can be less accurate due to the introduction of sampling errors in each stage.

KEY READINGS

Berger, A. A. (2000). *Media and communication research methods: an introduction to qualitative and quantitative approaches.* Thousand Oaks, CA: Sage.

Davies, M. M. and Mosdell, N. (2006). *Practical research methods for media and cultural studies: making people count.* Edinburgh: Edinburgh University Press. Available from: bit.ly/2LX89GW.

Neuman, W. L. (2014). *Social research methods: qualitative and quantitative approaches.* Harlow: Pearson.

BBC Bitesize (no date) *Collecting Data.* Available from: bbc.in/2LJlZMS.

Non-random sampling is used in qualitative methods when probability sampling is impossible or impractical. Again there are several methods, and it can sometimes be easier to understand these methods by practising them. Try tipping ten boxes of **Smarties** onto the table and using some of the methods to sample the chocolate!

- *Convenience sampling* is where we choose samples from our immediate environment.
- *Quota sampling* is used when we need to ensure that the sample includes specific variables. With this method we identify categories and the number of cases in each category ('quota') and we apply convenience sampling in each category.
- *Snowball sampling* is useful when we don't have the names of the people in the target group or when we study networks. It starts with a sample that meets the criteria of the study. Then the people in the sample identify other people who meet the criteria and can be included in the sample. The stages continue in the same way, until the sample is complete.
- In some studies, such as field research, or for pilot studies, we may use *purposive* (or *judgment*) sampling. Here we select the sample based on the purpose of the study, specialized populations for example.

ACTIVITIES

1. Discuss in your group which sampling method you would use if you were researching which social media platform is the most used in your school. Think of the different random and non-random sampling methods. Which method would be the most suitable to answer your question in an unbiased way?
2. Working in a group, choose a random sampling method and try to find examples of research where that method would be the most appropriate to be used. In which cases would you need to use *cluster* sampling, for example? When would you use *simple random sampling*? Think of the advantages and limitations of each method.
3. Continue with the previous activity, but this time think of examples when you would use non-random methods for your research, taking into consideration the way the sample is selected in each method. What are the advantages and limitations of these methods?

These resources are produced by the University of Westminster School of Media and Communications. This topic was developed by the EPQ team and **DR. EFTHIMIA BILISSI** of the University of Westminster. Image by Benny Jackson from UnSplash.

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