

Task 1

Data Collection

What is Data Collection?

Data collection is the process of collecting and evaluating information or data from multiple sources to find answers to research problems, answer questions, evaluate outcomes, and forecast trends and probabilities. It is an essential phase in all types of research, analysis, and decision-making, including that done in the social sciences, business, and healthcare.

Accurate data collection is necessary to make informed business decisions, ensure quality assurance, and keep research integrity.

During data collection, the researchers must identify the data types, the sources of data, and what methods are being used. We will soon see that there are many different **data collection methods**. There is heavy reliance on data collection in research, commercial, and government fields.

Before an analyst begins collecting data, they must answer three questions first:

- What's the goal or purpose of this research?
- What kinds of data are they planning on gathering?
- What methods and procedures will be used to collect, store, and process the information?

Additionally, we can break up data into qualitative and quantitative types. Qualitative data covers descriptions such as color, size, quality, and appearance. Quantitative data, unsurprisingly, deals with numbers, such as statistics, poll numbers, percentages, etc.

Why Do We Need Data Collection?

Before a judge makes a ruling in a court case or a general creates a plan of attack, they must have as many relevant facts as possible. The best courses of action come from informed decisions, and information and data are synonymous.

The concept of data collection isn't a new one, as we'll see later, but the world has changed. There is far more data available today, and it exists in forms that were unheard of a century ago. The data collection process has had to change and grow with the times, keeping pace with technology.

Whether you're in the world of academia, trying to conduct research, or part of the commercial sector, thinking of how to promote a new product, you need data collection to help you make better choices.

Now that you know what is data collection and why we need it, let's take a look at the different methods of data collection. While the phrase "data collection" may sound all high-tech and digital, it doesn't necessarily entail things like computers, [big data](#), and the internet. Data collection could mean a telephone survey, a mail-in comment card, or even some guy with a clipboard asking passersby some questions. But let's see if we can sort the different data collection methods into a semblance of organized categories.

What Are the Different Data Collection Methods?

Data Collection Tools

Now that we've explained the various techniques, let's narrow our focus even further by looking at some specific tools. For example, we mentioned interviews as a technique, but we can further break that down into different interview types (or "tools").

- Word Association

The researcher gives the respondent a set of words and asks them what comes to mind when they hear each word.

- Sentence Completion

Researchers use sentence completion to understand what kind of ideas the respondent has. This tool involves giving an incomplete sentence and seeing how the interviewee finishes it.

- Role-Playing

Respondents are presented with an imaginary situation and asked how they would act or react if it was real.

- In-Person Surveys

The researcher asks questions in person.

- Online/Web Surveys

These surveys are easy to accomplish, but some users may be unwilling to answer truthfully, if at all.

- **Mobile Surveys**

These surveys take advantage of the increasing proliferation of mobile technology. Mobile collection surveys rely on mobile devices like tablets or smartphones to conduct surveys via SMS or mobile apps.

- **Phone Surveys**

No researcher can call thousands of people at once, so they need a third party to handle the chore. However, many people have call screening and won't answer.

- **Observation**

Sometimes, the simplest method is the best. Researchers who make direct observations collect data quickly and easily, with little intrusion or third-party bias. Naturally, it's only effective in small-scale situations.

Your Task:

1. Your task is to learn about data collection more as a data analyst and prepare a one-to-two-page word file report on that it's up to you what you want to add on the report but think as a data analyst.
2. Also, you have to research on different companies data(Big MNC's) and collect their data which include their Name, address of head office , Email address, Their revenue for 2023, revenue for 2022 and for 2021 if they are profitable or not search for top 25 companies and store that in an excel sheet the example is attached to the mail refer to it