QUALITATIVE DATA

Qualitative data is defined as the data that approximates and characterizes.

Qualitative data can be observed and recorded. This data type is non-numerical in nature. This type of data is collected through methods of observations, one-to-one interview, conducting focus groups and similar methods. Qualitative data in statistics is also known as categorical data. Data that can be arranged categorically based on the attributes and properties of a thing or a phenomenon. Qualitative data is also called categorical data since this data can be grouped according to categories. Examples of qualitative data include sex (male or female), name, state of origin, citizenship, etc. A more practical example is a case whereby a teacher gives the whole class an essay that was assessed by giving comments on spelling, grammar, and punctuation rather than score.

[Importance of Qualitative Data](https://www.questionpro.com/blog/qualitative-data/)

Qualitative data is important in determining the particular frequency of traits or characteristics. It allows the statistician or the researchers to form parameters through which larger data sets can be observed. Qualitative data provides the means by which observers can quantify the world around them. For a market researcher, collecting qualitative data helps in answering questions like, who their customers are, what issues or problems they are facing and where do they need to focus their attention so problems or issues are resolved. Qualitative data is about the emotions or perceptions of people, what they feel.

[Qualitative Data Collection Methods- Types of Qualitative Data](https://www.questionpro.com/blog/qualitative-data/)

Qualitative data collection is exploratory in nature, it involves in-depth analysis and research. Qualitative data collection methods are mainly focused on gaining insights, reasoning, and motivations hence they go deeper in terms of [research](https://www.questionpro.com/blog/what-is-research/). Since the qualitative data cannot be measured, this leads to the preference for methods or [data collection](https://www.questionpro.com/blog/data-collection/) tools that are structured to a limited extent.

 TYPES OF QUALITATIVE DATA

Qualitative Data can be divided into two types, namely; [Nominal](https://www.formpl.us/blog/nominal-data) and Ordinal Data

NOMINAL DATA: In statistics, nominal data (also known as nominal scale) is a classification of categorical variables,that do not provide any quantitative value. It is sometimes referred to as labelled or named data. However, this quantitative value lacks numeric characteristics. Unlike, interval or ratio data, nominal data cannot be manipulated using available mathematical operators. For example, a researcher may need to generate a database of the phone numbers and location of a certain number of people. An online survey may be conducted using a closed open-ended question. EXAMPLE: Enter your phone number with country code.

 ORDINAL DATA: [Ordinal data](https://www.formpl.us/blog/ordinal-data) is a type of qualitative data where the variables have natural, ordered categories and the distances between the categories are not known. For example, ordinal data is said to have been collected when a customer inputs his/her satisfaction on the variable scale — "satisfied, indifferent, dissatisfies".Thus, [ordinal data is a collection of ordinal variable](https://www.formpl.us/blog/ordinal-data)s. For example, the data collected from asking a question with a Likert scale is ordinal.

 QUALITATIVE DATA COLLECTION METHODS

1. ONE-ON-ONE INTERVIEW: One of the most commonly used data collection instrument for qualitative research, mainly because of its personal approach. The interviewer or the researcher collects data directly from the interviewee on a one-to-one basis. The interview may be informal and unstructured – conversational. The questions asked are mostly [open-ended questions](https://www.questionpro.com/open-ended-questions.html), spontaneous, with the interviewer letting the flow of the interview dictate the next questions to be asked. EXAMPLE: When filling job application forms, the applicant is usually required to fill his/her qualification. This data can be collected in different ways — open-ended or closed questions.

 Open-ended question approach

 What is your highest qualification? \_\_\_\_\_

 Closed-ended Question approach

 What is your highest qualification?

 SSCE

 BSc.

 HND

 MSc.

 PhD

2.FOCUS GROUPS: This is done in a group discussion setting. The group is limited to 6-10 people and a moderator is assigned to moderate the ongoing discussion. . Enter your phone number with country code. Depending on the data which is sorted, the members of a group may have something in common. For example, a researcher conducting a study on track runners will choose athletes who are track runners or were track runners and have sufficient knowledge of the subject matter.

3. RECORD KEEPING: This method makes use of the already existing reliable documents and similar sources of information as the data source. This data can be used in a new research. This is similar to going to a library. There one can go over books and other reference material to collect relevant data that can likely be used in the research.

4. PROCESS OF OBSERVATION: In this qualitative data collection method, the researcher immerses himself/ herself in the setting where his respondents are, and keeps a keen eye on the participants and takes down notes. This is known as the process of observation. Besides taking notes, other documentation methods, such as video and audio recording, photography and similar methods can be used.

5,LONGITUDINAL STUDIES: This data collection method is performed on the same data source repeatedly over an extended period of time. It is an observational research method that goes on for a few years and in some cases can go on for even decades. The goal of this data collection method is to find correlations through an empirical study of subjects with common traits.

6. CASE STUDIES: In this method, data is gathered by in-depth analysis of case studies. The versatility of this method is demonstrated in how this method can be used to analyze both simple and complex subjects. The strength of this method is how judiciously it uses a combination of one or more qualitative data collection methods to draw inferences.

7. COMPETITIVE ANALYSIS: During competitive analysis, brands send out questionnaires to their target market to access the popularity of their competition. For example:

Which of the following payment platforms are you familiar with?

-Paypal -Paystack

-Flutterwave -Stripe

They may even take it further by asking questions like, "How did you hear about them?". This may even help them improve their marketing strategy.

8,SURVEYS OR QUESTIONNAIRES: Researchers use surveys and questionnaires to carry out investigations and collect data. Below is an example of a questionnaire that collects nominal data.

Where is your country of residence?  \_\_\_\_\_

9,BUG SEVERITY: When testing for bugs on a website or software, security researchers also check for bug severity. The extent to which a bug can cause damage is what is termed as its severity. The severity of a bug may be said to be critical, high, medium or low. This data can be collected on either a nominal or ordinal scale.

10,LIKERT SCALE: [A Likert scale is a point scale](https://www.formpl.us/blog/point-likert-scale) used by researchers to take surveys and get people's opinions on a subject matter. Consider this example:

How will you rate the new menu?

-Very good  -Good

-Neutral -Bad

 -Very bad

This is a [5 point Likert scale](https://www.formpl.us/blog/point-likert-scale), a common example of ordinal data.

 QUANTITATIVE DATA

Quantitative data is everything about figures and numbers. Researchers often rely on quantitative data when they intend to quantify attributes, attitudes, behaviors, and other defined variables with a motive to either back or oppose the hypothesis of a specific phenomenon by contextualizing the data obtained via surveying or interviewing the study sample. As a researcher, you do have the option to opt either for [data collection online](https://www.questionpro.com/blog/data-collection/) or use traditional data collection methods via appropriate research. However, you will need computational, statistical, and mathematical tools to derive results from the collected quantitative data.

 CATEGORIES OF QUANTITATIVE DATA

1,DISCRETE DATA: Discrete data is a type of data that consists of counting numbers only, and as such cannot be measured. Measurements like weight, length, height are not classified under discrete data. Discrete data can be said to be either countably finite or countably infinite. An example of a countably finite data is an arbitrary set A = {1, 2, 3,...,n; where n is less than infinity} while that of a countably infinite data is an arbitrary set B = {1,2,3,...}.Also known as attribute data, discrete data can't be broken down into smaller units. It is typically counted in whole numbers and there is nothing like half a value. Examples of discrete data include; the number of students in a class, the number of days in a year, the age of an individual, etc. When trying to identify discrete data, we ask the following questions; Can it be counted? Can it be divided into smaller parts?

2, CONTINOUS DATA: This has infinite and contains fractions and decimals. When research is limited to the study of physical measurements of the population like height, weight, age, or distance, then the result is an excellent example of continuous data.. Continuous data can be said to be either uncountably finite or uncountably infinite. For example, let us consider the Cumulative Grade Point (CGPA) of students in a class, measured on a 5 point scale. A student can score any grade between 0 points and 5 points, including figures like 1.573, 4.5, 2.6981, etc. We classify this an uncountably finite continuous data because it has an upper (5) and lower bound (0).  There are 2 types namely:

1,[Interval data](https://www.formpl.us/blog/interval-data%22%20%5Ct%20%22_blank) is defined as type of data which is measured along a scale, in which each point is placed at equal distance from one another. It is an extension of ordinal data, with a standardised scale as opposed to the former.

2.Ratio data is an extension of interval data. It is the ultimate when we talk about data measurement because it tells us about the order, exact distance between units on the scale, and has an absolute zero.

 QUANTITATIVE DATA COLLECTION METHOD

1,DATA PROJECTION

Researchers project future data using algorithms and mathematical analysis tools. For instance, a company who is about to launch a new product into the market will analyse quantitative data from previous research to predict an increase or decrease in sales.

2,CENSUS

The Government carry out census to acquire and record information about the members of a given population. Large government research departments uses census data to predict which sector of the economy needs money and how much they need, how many seats a state will have in the U.S. House of Representatives, etc.

3,ANNUAL INCOME

When setting the selling price of a product, businesses use quantitative data of the annual income of a person or household to determine their purchasing power. This exercise is part of business research process and may be conducted before launching a new product or increasing the price of an existing product.

4,COUNTER

Many online businesses use this to determine the number of website visits they get daily, number of product downloads on the app store, the number of users etc. The numbers are usually automatically generated through pre-programmed codes.

5,CUSTOMER SATISFACTORY SURVEY

This is a case of quantification of qualitative entities used by businesses to improve their customer service. For example, telling a customer to rate an addition to a menu on a scale of 1-10 will help the restaurant decide whether to remove it, improve on it or leave it as it is.

6,CLOSED-ENDED SURVEY AND ONLINE QUIZZES

Closed-ended surveys and [online quizzes](https://www.leadquizzes.com/) are based on questions that give respondents predefined answer options to opt for. There are two main types of closed-ended surveys – those based on categorical and those based on interval/ratio questions. Categorical survey questions can be further classified into dichotomous (‘yes/no’), multiple-choice questions, or checkbox questions and can be answered with a simple “yes” or “no” or a specific piece of predefined information.