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QUESTIONS

1. Quantitative data collection methods with relevant examples
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**QUALITATIVE DATA COLLECTION METHODS**

In qualitative data collection, research process is inductive, social reality meanings are constructed, it focuses on in-depth meaning, its values are present and explicit, it has contextual importance and it requires few cases/ participants. It’s analysis is thematic and researcher act as a central control so for data collection.It is a loosely structured research process and research is usually an insider.It is a process oriented and has a holistic perspective. It is generalized by comparison of properties and consists of individual organisms. Qualitative data collection is subjective, that is, it has an insider view and closeness to data. Qualitative data collection looks at several factors to provide an in-depth understanding of raw data. While qualitative methods involve the collection, analysis, and management of data, instead of counting responses or recording numeric data, this method aims to assess factors like the thoughts and feelings of research participants. Qualitative data collection methods go beyond recording events to create context. Qualitative data collection consider all factors other than numerical values. Some examples of this method are; interviews, focus groups, observations, oral histories, Ethnography/Case studies,Life Histories- biographies, Participant Observation- lives and takes part, Non-Participant observation, Focus Group Discussion, Group Interviews, In-depth Interviews, Semi-Structured Interviews

With this enhanced view, researchers can;

* Describe the environment: Understanding where observations take place can add meaning to recorded numbers.
* Identify the people involved in the study: If research is limited to a particular group of people, whether intentionally or as a function of demographics or other factors, this information can inform the results.
* Describe the content of the study: Sometimes, the specific activities involved in research and how messages about the study were delivered and received may illuminate facts about the study.
* Interact with study participants: Interactions between respondents and research staff can provide valuable information about the results.
* Be aware of external factors: Unanticipated events can affect research outcomes. Qualitative data collection methods allow researchers to identify these events and weave them into their results narrative, which is nearly impossible to do with just a quantitative approach.

There are three commonly used qualitative data collection methods: ethnographic, theory grounded, and phenomenological.

Ethnography comes from anthropology, the study of human societies and cultures. Ethnography seeks to understand how people live their lives. Through this method, researchers veer away from the specific and practical questions that traditional market researchers use and instead observe the participants in a non-directed This approach is intended to reveal behaviors from a subject’s perspective rather than from the view of the researchers.

Ethnography helps fill in the blanks when a participant may not be able to articulate their desires or the reasons for their decisions or behaviors. Instead of, or in addition to, asking why a participant acts a certain way, researchers use observation to understand the why behind these desires, decisions, or behaviors.

Grounded theory arose when sociological researchers sought to provide a level of legitimacy to qualitative research — to ground it in reality rather than assumptions. Before this method, qualitative data analysis was actually done before any quantitative data was collected, so it was disconnected from the collection and analysis process.

Grounded theory uses the following methods:

Participant observation. Researchers immerse themselves in the daily lives of subjects. Another term for this is “fieldwork.”

Interviews. These can vary in formality from informal chats to structured interviews.

Document and artifact collection. Grounded theory often is about more than observation and interviews. Researchers can learn about a group of people from looking at materials the group used. For example, a local community’s laws may shed light on opinions and provide a clearer picture of residents’ sentiments.

Sometimes, a person’s true colors emerge only when they are genuinely put to the test. As such, phenomenology describes how people experience certain events or unique encounters. This method measures reactions to occurrences that are outside of the norm, so it’s essential to understand the whole picture, not just facts and figures.

An example of phenomenology is studying the experiences of individuals involved in a natural disaster. To analyze data from such an event, the researcher must become familiar with the data; focus the analysis on the subject matter, time period, or other factors; and categorize the data.

Completing these tasks gives the researcher a framework for understanding how the natural disaster impacts people. Together, the understanding, focus, and organization help researchers identify patterns, make connections, interpret data, and explain findings.

Each of these qualitative data collection methods sheds light on factors that can be hidden in simple data analysis. Qualitative data is one way to add context and reality to raw numbers. Often, researchers find value in a hybrid approach, where qualitative data collection methods are used alongside quantitative ones

**QUANTITATIVE DATA COLLECTION METHODS**

In quantitative data collection, research process is deductive, facts are measured objectively, it focuses on variables, it has a value free research,

Is independent of context and requires many cases or subjects. It’s analysis is statistical and the instruments for data collection are objective. it’s a highly structured research process and the researcher is usually an outsider.It is a results oriented and has a particularistic and analytical perspective. It is generalized by population membership. Quantitative data collection is objective, that is, it has an outsider view, distance from data. Quantitative data collection method deals with things that can be counted. Data analysis can take various formats. The method you choose depends on the subject matter of your research.

Quantitative methods, such as surveys, large-scale benchmarks, and prioritization, answer the question “How much?” But these methods can leave the question “Why?” unanswered. This is where qualitative data collection methods come into play. Some methods of deriving quantitative data are; questionnaires, surveys, documents and records etc

Marketers, scientists, academics, and others may start a study with a predetermined hypothesis, but their research often begins with the collection of data.

Initially, the collected data is unstructured. Various facts and figures may or may not have context. A researcher’s job is to make sense of this data, and the choice of data collection method often helps.

One of the most widely used methods of collecting information for research purposes is quantitative data collection. Quantitative analysis relates to evaluating a numerical result. A classic example is a survey, which asks questions to collect responses that shed light on trends, preferences, actions, opinions, and any other element that can be counted.

Quantitative data collection methods are popular because they are relatively straightforward. Using these methods, researchers ask questions to collect sets of facts and figures. Quantitative data is measurable and expressed in numerical form. While this seems like a fairly simple concept, like many aspects of research, there are various approaches to quantitative data collection that depend on the particular research being conducted.

Researchers use four different primary quantitative research designs: descriptive, correlational, experimental, and quasi-experimental.

Descriptive research explains the current status of a variable using observational data collection. Often, the researcher begins without a hypothesis and lets the data steer the direction of the study. A simple example of quantitative descriptive research is a study that collects and tabulates test scores. Descriptive research frequently uses charts and tables to illustrate results. While a descriptive approach is often quantitative, it can be qualitative. Descriptive data collection asks questions such as “What is X?”

Correlational research seeks to collect data that shows relationships between different occurrences. A positive correlation is one in which two variables either increase or decrease at the same time. A negative correlation is when an increase in one variable means a decrease in another. There is also a zero correlation result, in which the relationship between two variables is insignificant. Correlation helps make predictions based on historical relationships and in determining the validity and reliability of a study. An example of correlational data would be how a person’s height often correlates to their weight — the taller one gets, usually the heavier they are. This is a positive correlation.

Experimental research, also known as “true experimentation,” uses the scientific method to determine the cause-and-effect relationship between variables. This method uses controls for all of the crucial factors that could potentially affect the phenomena of interest. Using the experimental method, researchers randomly assign participants in an experiment to either the control or treatment groups.

Quasi-experimental research, also known as “causal-comparative,” is similar to experimental research. Since it’s often impossible or impractical to control for all factors involved, quasi-experimental methods don’t control for some factors but otherwise follow the scientific method to establish a cause-and-effect relationship.

In both of these types of studies, independent variables are manipulated. But experimental data collection methods use random assignment and sampling, whereas quasi-experimental methods don’t randomize assignment or sampling or both.

Experimental methods are known for producing results that are both internally and externally valid, meaning that the study is conducted, or structured, well (internal validity) and the findings are applicable to the real world (external validity). Quasi-experimental methods, on the other hand, produce results of questionable internal validity.

There are a number of ways researchers can put different types of quantitative data collection into action without using experiments.

Quantitative surveys enable researchers to ask closed-ended questions with a provided list of possible answers. This method is easier for respondents, as they just pick from a list of responses. It’s an ideal solution for larger-scale studies that could become unwieldy with the type of open-ended questions often associated with qualitative surveys.

Because the questions and answers are standardized, researchers can use the results to make generalizations. Closed-ended questions, however, can be limiting. A respondent may not see their answer in the given choices.

Quantitative interviews are typically conducted face to face, over the phone, or via the internet. They enable researchers to not only collect information but also tailor the questions to the audience on the spot. This can help add some “why” to the “how much” collected through quantifiable means.