What is Qualitative Research?

Qualitative Research involves the use of words and observations as data rather than numbers. It seeks to answer the “why” rather than the “how” question. That is to say that it seeks to gain insight into human behavior, attitudes, motivations, values and culture in order to explain why people do what they do. While quantitative analysis can provide data to show what people are doing, it generally has more difficulty in establishing causality and thus explaining why they are doing it. Qualitative analysis, on the other hand, typically provides insight into the reasons behind actions.

Why Qualitative Research?

Quantitative techniques can model how people behave (transportation engineers, for example, have been modeling the behavior of drivers in traffic for decades and have used this data and analysis to plan traffic routes, intersections and the like) but they have difficulty in explaining the overall worldview and approach that motivate and regulate particular behaviors. This can sometimes lead to an inability to predict how people will behave given a certain situation.

To use our example of transportation engineering once again: a traffic flow design based on the assumption that drivers will follow traffic signs and rules can be highly efficient (and predictable) in cultures, like that of the United States, where people generally follow traffic rules but it can be highly inefficient in cultures, like the developing world, in which formal rules are often ignored and drivers seek to solve traffic problems at their own initiative.
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Why Qualitative Research?

At the same time, a traffic system in which much is left to the initiative and understanding of the driver may lead to tremendous confusion and gridlock in the United States and yet sometimes works uncannily well in the almost impossible traffic situations (intersections without working lights, carts pulled by animals in the roadways, pedestrians in the streets, etc.) one sometimes sees in the major cities of the developing world.

Consequently, different rules make sense in different cultural and societal contexts despite the fact that a motor vehicle is a motor vehicle anywhere in the world. Cars, roads, traffic lights, etc. are the same, it is the people in different societies that approach driving and traffic with different perspectives and hence exhibit variations in behavior.

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QUANitative VS. QUALitative

Traditional scientific research is usually quantitative and many people readily recognize various quantitative techniques as being “true” science whereas qualitative techniques sometimes appear fuzzy and lack the comfort and the illusion of certainty provided by quantitative techniques.

A biologist studying the behavior of cells in a Petri dish, a chemist studying the interaction between two compounds and a physicist bombarding an atom with energy do not have to worry about the “motivation,” “attitude,” or “cultural context” of their respective subjects. By looking at how something behaves, they can then try to understand why it behaves in that way. But the cell, compounds or atom will behave as they do for mechanistic reasons because they obviously lack the ability to think and then decide on a course of action.

Social science research, on the other hand, has the distinct misfortune of having, as its basic unit of analysis, the human being. Humans are notoriously difficult to understand because their motivations and subsequent behaviors represent a mix of logic and emotion modulated by an almost limitless set of factors ranging from their upbringing and diet to their culture, religion, profession and life experiences.
Use a Well Thought-out Process

Understanding and analyzing human thought processes and motivation or how ethnic, religious or professional cultures affect perception and thinking cannot, in most cases, be effectively carried out using traditional quantitative techniques, but this does not mean that adopting a qualitative approach means abandoning the scientific method – quite the contrary!

While it may not be possible to conduct replicable experiments when dealing with human beings in social situations, qualitative analyses do require a rigorous approach to gathering and analyzing data precisely because findings can rarely be replicated and thus must have been rigorously produced and analyzed through fully transparent processes. Cataloging what and how the research was conducted is thus essentially in order to enhance the credibility of the findings.

Good research, in the qualitative context, consists of capturing data through a well thought-out process that is then analyzed through a clear and logical methodology. The entire process must be rigorously cataloged and described, including providing the logic behind decisions made with respect to data capture and analysis.

While rigor and transparency are critical in all cases, there is not one, but rather several, methodologies for conducting qualitative research. The use of a given methodology will depend on the nature of the research questions, the data that is available or obtainable on the subject, and the research products desired.

Step 1: Capture and Analyze Data

In qualitative analysis, data usually comes in the form of texts, narratives or sometimes from observations. This data can come from interviews, open-ended questionnaires, discussions, observed interactions and behaviors, personal accounts of experiences or documents ranging from letters, diaries or works of literature to press reports, official government documents and academic studies.

The first step in the research process is to understand the nature of the data and determine whether or not it is likely to shed insight on the motivations and behaviors of individuals, groups, organizations or countries (in short, whatever the particular unit of analysis is in
the given research project). The data chosen has to be relevant to the motivation, thought process or behavior being studied.

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**Step 1: Capture and Analyze Data**

For example, during the Cold War, Western intelligence officers and academics were keenly interested in understanding the thinking and motivations behind the behavior of the Soviet leaders and institutional actors in order to understand their past and present actions and, especially, to predict future ones. Since the Soviet Union was a closed society and precious little independent journalistic or other information came out of Moscow, Western spooks and scholars regularly conducted textual analysis of the major Soviet newspapers. These newspapers certainly did not represent independent journalism, they were controlled by different institutional masters answering to different members of the Soviet Politburo (some to the central Soviet Government, some to the Communist Party, some to the regional Soviet governments, some to the Communist Party’s youth wing, etc.). By conducting a close analysis of the type of language used and the descriptions and editorial slant, analysts could sometimes gain insight into internal frictions and pressures within the Soviet system between institutions and the political leaders running them. Needless to say, drawing conclusions from such analyses of newspapers requires employing a logical and methodical approach that needs to be tested against external events to validate that approach. In other words, for example, if an analyst saw indications in an influential Soviet newspaper that a member of the Politburo was falling out of favor and then that person was subsequently removed, demoted, kicked upstairs or exiled to Siberia, then this would be an indication that that particular newspaper and the information that it contained may be a credible source of intelligence.

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**Step 2: Develop a Research Objective**

The second step in the process is to determine what the analysis is supposed to uncover. This involves developing a set of research questions and then determining how the data might be analyzed in order to answer those questions. Analysis can focus on a particular topic, time period of issue of interest or it can focuses on an individual, group or particular case. It is also possible to combine the approaches and do a little of this and a little of that.
Step 2: Develop a Research Objective

For example, if research was being conducted on how people behave during natural disasters and the data being used consisted of interviews with disaster survivors and press stories of individuals coping with these disasters, then the analysis could focus on the individual if the research objective was to explain what individuals in such situations may think or feel. Alternatively, the analysis could focus on specific groups (if the interview and press data provided information as to affiliation) such as the elderly, minorities, religiously active persons, etc. in terms of how those groups functioned if the objective was to explain group motivations and behavior. Of course, if one wanted to understand the motivations and thinking of a government agency in the context of dealing with disasters, data coming from interviews of ordinary citizens and press accounts of how ordinary citizens dealt with disasters would not be relevant to the focus of the analysis.

Step 3: Categorize the Data

Once data has been obtained and it has been decided how to use that data in terms of what the analysis will focus on and how this will further the research objectives, the third step of the process involves categorizing the data by organizing it into clear categories and/or identifying themes in the data. This is a critical phase because the researcher must organize the data in a way that allows insight into the subject being studied. Categories or themes can be determined ahead of time and then the data can be plugged into those categories or themes as appropriate or categories or themes can emerge from the data as the data is being assessed, depending on whether one is using a deductive or inductive approach to research.

For example, if the researcher is interested in understanding what motivates people to report suspicious activity to the police and the data that is available comes from the recordings of phone calls to tip lines, then the researcher could decide to categorize the data based on things such as whether the subjects sounded male or female, their accents (indicating an individual's regional or ethnic association), the type of terminology they used to describe the suspicious activity, the degree to which they seemed hesitant to
provide the information, etc. or the researcher could decide to just listen to the calls without any formal preconceptions and then allow patterns to emerge that can constitute categories in which to group the calls or the callers.

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**Deductive and Inductive Approaches**

A deductive approach involves looking at broad phenomena or theories and then trying to deduce specific insights whereas an inductive approach involves trying to extrapolate general trends from specific data points.

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**Deductive Approach**

To put this another way, if we want to understand why a particular individual becomes a criminal, we can use deductive reasoning and look at a variety of theories of criminal behavior (classical, neoclassical, evolutionary, psychoanalytic or one of the many theories based on social determinism) in order to try and explain what has caused that individual to exhibit criminal behavior. Zone Theory, which is a form of social determinism, argues that an individual becomes a criminal because of geographic and physical factors having to do with where he/she lives in a city (in terms of zones: residential, industrial, etc.). Trying to explain why someone became a criminal based on where he/she lives or grew up is a form of deductive reasoning. Of course, one would then have to test that against reality by conducting a study to see if a statistically significant number of criminals live or grew up in zones that were more conducive of criminal behavior. One would also need to try and “prove” that competing explanations were less valid. For example, one might argue that criminality is a learned behavior (based on a competing social deterministic theory known as Interactionism) and that people who live in certain zones associate with each other and hence geography and the physical environment, per se, are not the causal factor in criminal behavior.

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**Inductive Approach**

Inductive reasoning would involve studying the life story of one or more individuals that exhibited criminal behavior and trying to see if there are commonalities in those individuals’ life experiences that would seem to suggest a broader principle. If a series of criminals from the same city are being studied and all come from the same urban zone, one
might then extrapolate that geography and the physical features of a given location play an important role in creating the conditions for criminal behavior (assuming, as noted earlier, one could discount other variables such as the individual learning certain traits by close association with other criminals).

As you can see from the above example, one could come up with Zone Theory either using deductive or inductive reasoning because the objective in both is to come up with and validate causal explanations for various phenomena.

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Step 4: Identify Patterns and Connections

The next step in the process is to identify patterns in themes or categories, connections within or between themes or categories or relationships.

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To use the example from the previous slide, if certain people mention on their phone calls to the tip lines that they feel that their neighborhood is unsafe and those people also tend to primarily file reports on suspicious vehicles instead of loitering pedestrians, this may lead to some insight as to what people who feel more attached to their neighborhoods, or are perhaps veteran inhabitants of those neighborhoods (or both) tend to fear more acutely and what may motivate them to act on those fears and report on suspicious activities.

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Step 5: Interpret the Data

The final step in the process is to interpret the data, now organized into useful categories, based on the research objectives. In other words, understanding how the data and the analysis of that data have produced new insights on the phenomenon being studied. Just presenting the research findings is not enough. Those findings need to be explained and put into the context of the overall research project so that the reader can understand their relevance and they can be used to support the project’s final conclusions.
Research is a Tradeoff

It is important to bear in mind that the findings of qualitative analysis will be harder to generalize across a larger population, in comparison to quantitative analysis because qualitative analysis necessarily focuses on a much smaller pool of subjects. Since qualitative analysis focuses more on individual motivations and thought processes (and factors impinging on those thought processes), they are much more focused on the trees than on the forest. What one gains in focus and clarity on individual trees one loses in terms of understanding the nature of the larger forest. Research is a tradeoff and the choice of a given technique always means loss as well as gain.