## Free research paper on research methods

Environment, Nature



Critical thinking requires people to use their inferences and assumptions in order to draw a conclusion to the things they come across in their day to day life. It involves using all the tools necessary to analyze the value and nature of the things that surround us. In this case, we shall focus on two basic techniques used for investigating phenomena and acquiring knowledge. They will also help us to determine ways of correcting and integrating knowledge that was acquired in the past. This paper will attempt to portray the difference between scientific inquiries and the everyday assumptions made by people and the way claims are made based on these two different approaches. To start with, people use everyday assumptions to draw conclusions or evaluate the value of a substance. Assumptions are things taken for granted or are not guestioned. They are part of our beliefs. For instance, if we were to consider the people who smoke in a state like Chicago, it would be relevant to say probably a third. This is an everyday assumption that estimates the population of Chicago that smokes (Konicek, 2010).

Similarly, we have scientific inquiries that dwell on evidence, the use of hypothesis and theories. They are different strategies used in scientific inquiries that differ in the way scientists carried out the investigation. The difference is also present in the way these scientists depended on the experimental findings and the qualitative and quantitative methods.

Scientists believe that the use of science requires evidence and is usually a mixture of logic and imagination. It also explains and predicts the outcome of events and scenarios. For instance, using the same example above, scientific inquiries will give clear data or rather information about the number of

people who smoke in Chicago in that it will dwell with details and research findings. This case will require the use of qualitative and quantitative research methods that will present the actual details of the topic at hand (Monsen, 2008).

Question 2. Explain the research Methods Knowledge Base to a friend.

The Research Methods Knowledge Base is a summarized edition of the research process that comprises of the research questions, sampling, measurement, research design and data analysis techniques. It facilitates students and researchers to access these techniques via the web and guides them through the research methodology by engaging any user in a conversation to validate their findings. In a scenario where my classmate and I reviewed the measurements section of the Knowledge Base, the relevant questions to test our understanding of qualitative measures would be:

- What are the different types of measures used in social research?
- In your research, do you intend on developing new hypotheses or theories?
- Are there funds available to fund the research?
- What are the most important things to consider when carrying out a quantitative research?

If you wanted to be able to generalize the results of your research, would you choose a quantitative or a qualitative design? Why?

In order to be able to generalize the results of your research it would be appropriate to use quantitative design in that after using a sample from the research subject it only requires the data collected from the sample to be computed under some aggregate statistics such as the mean or median of

the whole group.

A qualitative and quantitative debate with my classmate would involve points such as the qualitative design is more appropriate than qualitative as it helps to narrow down on a very small group or data and give actual facts while quantitative data normally generalizes on the data acquired.

Quantitative research leads to confirmations and is deductive in nature while qualitative research tries to explain facts and is inductive in nature. These are some of the points I would raise in debate.

Three ways of collecting qualitative data include: interviews, observation and field research. Qualitative research requires the use of methods that collect data that is discreet in nature; therefore the appropriate methods for collecting this data include observing which requires the researcher to study the subject by observing it. The other method involves interviewing the respondents either verbally or written questionnaires. This enables the researchers to acquire information from the direct source. The third method involves the researcher to actually go the place of study and acquire information on his/her own.

What are the main ideologies behind the qualitative measures? These include the qualitative debate, qualitative data, the approaches used in qualitative design, the different methods used and the validation process. What other features are provided by the site that guide in the research process? There is the deign part of the research, the analysis part that helps in critically interpreting the data and also the sampling part that helps in drawing the information collected in a way that helps summarize the appropriate analysis method.

How does the site help any researcher in getting a clear understanding about research? The site provides tools and techniques that are easy to navigate and understand the different ways and steps data can be collected using different techniques and ways of analyzing it.

Which is the most appropriate data collection method to use? The most applicable method is the qualitative technique as it provides clear and precise data without generalizing.

What are the effects outlined in the site? The site helps identify various effects brought about in terms of relationships as a scenario used. It identifies inflation and unemployment as some of the effects identified from the research. In addition to this, it helps identify the reasons why research clears many of the doubts in peoples' minds by giving facts.

This site covers various topics such as measurement, design and analysis of data that are essential in identifying the validity of data collected through the various methods. In this case I chose to deal with analysis and design as they cover the major areas that help to explain the situation as to why and how data collected produced various results. These topics are helpful in that they help in clear understanding of information after carrying out a research and help people in institutions to validate and use it to make conclusions. It also gives the actual information on a certain topic that prevents people from making assumptions that would lead to wrong strategies. Similarly, these topics are essential to students and researchers in that they help in a proper presentation of information to people who may not understand the discreet information collected.

It is also important and helpful to others in that it helps them to plan

properly on the issues presented by the information. Companies and other organizations may use these topics to strategically set the objectives to be used in their organizations as well as prevent future problems that may have been identified by the topics. In addition to, this it helps strategize on the findings and find better solutions.

## Differentiate between the qualitative and quantitative research.

Quantitative research involves gathering data that is absolute in nature or

rather data that use numerical values. It helps separate things easily in a

way that they can be counted and modeled statistically in order to eradicate obstacles. It is the systematic empirical investigation of situations or events through statistics or mathematics and computational techniques. Qualitative research aims at getting a clearer understanding of a specific organization or event, rather than the surface description. It provides a clear basis of the order, structure and patterns formed by a group of participants. The difference between the two methods lies in the data collection strategies, data analysis strategies, the role of variables and hypothesis. In quantitative research the methods of the set before the observation begins and then analyzed later. In qualitative analysis, the methods set up suggest the best types of observation to be used and analysis begins immediately after the observation part. Data in qualitative analysis is collected through observation, interviews, field research just to mention but a few but in the quantitative research, data are collected through taking samples, a small portion of the whole subject or even counting. These research methods also differ in the data analysis methods.

Data in the qualitative research is analyzed through techniques such as software called SPSS that helps in clearly explaining the outcomes while in the quantitative research data is analyzed by use of various techniques such as evaluating the mean, median, mode as so forth (Tauber, 2007). Variables in the qualitative research represent the range of data collected while variables in quantitative research represent the specific value of a participant.

The first video talks about the various methods of collecting data in the qualitative and quantitative research. It defines various methods and presents information on how data can be collected and analyzed. The second video shows the differences in the analysis of these research methods and elaborates on the appropriate methods for each of the techniques used. The third video shows the differences in these research methods as applied in different scenarios. It shows how and why it is appropriate to use each of the techniques and the way they can be utilized in the society.

These videos are very educational and informative through the way they present data and show the proper use of each method. However, they run too fast which is not clear to anyone watching and the scenarios used are not clear enough. Therefore, I recommend that these videos should try using encounters that are experienced in our day to day life.

## References

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