

Quantitative research methods involve conducting true experiments health essay

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Introduction

Conducting research is an inevitable part of a student's academic work.

When faced with the task of writing a research paper e. g. a dissertation, it is vital that the student engages in a planning process. Planning involves many tasks. One of the most important tasks in the planning process is determining the research method that will be used for data gathering. There are three main methodological approaches that students can use to ensure that they gather adequate data for their research: the qualitative, quantitative and mixed approach. The paper reviews the different research methods and the validity of each method in relation to the topic I have selected. My research topic is " The impact of the home health care practice in India healthcare industry-An action research. This research topic is quite broad and to capture the real healthcare situation in India; the researcher has to select the ideal research method to use. Adopting the ideal research methods means that the research paper will be valid. A valid research study gives findings that reflect on the actual situation on the ground.

Quantitative Research Methods

Quantitative research refers to the empirical investigation of phenomena using statistical and computational techniques. A researcher who uses the quantitative approach aims to develop and use statistical models, theories and hypothesis with regard to the phenomena under investigation. The quantitative research method relies on quantitative data i. e. data that are figures and in numeric forms. Quantitative methods of research enable the researcher to adopt deductive approaches in which the variables can be

justified suing a theory or a hypothesis. Overall, a researcher who engages in quantitative studies aims to project his findings on a larger population. With regards to the research topic on India and the home health care situation, the researcher will strive to gather findings that reflect the actual home healthcare situation in India (Teddlie, & Yu, 2007). The research will thus be collected data using strategies such as surveys. The survey will be done on a selected sample of participants who represent the entire population. Results gathered are interpreted to determine if they can be uses as viable conclusions representing the larger populations. With regards to this topic, the participants of the study can be a few home healthcare service providers. The findings gathered from the home healthcare service providers will be expected to reflect to reveal the impact of these services to healthcare industry in India. Quantitative research methods involve conducting true experiments, quasi experiments and correlation studies. A research may also prefer to use the quantitative research method with the aim of engaging in complex experiments with many variables and designs. Questionnaires and structured interviews can be used for data collection purposes. Use of questionnaires and interviews enables the researcher to interact directly with the participants and get raw data in relation to the phenomena being analyzed. The use of data collection methods such as observation needs the investigator to participate in the natural setting of the research for a long duration (Greene, 2008). The main role of the researcher will thus be to observe and collect observational data. This form of data collection is flexible as the researcher can evolve in tandem with the changes the he observed in the natural setting of the research. A researcher

using the quantitative approach of research can also use descriptive studies, to complete his study. Descriptive studies are also known as observational studies as the researcher is required to observe phenomena without intervening. A good example of a descriptive study under the quantitative research method is the use of case. With regards to the above topic, the researcher would observe selected home healthcare service facilities and determine the people they affect the healthcare industry in India. A researcher can also use grounded theory in an effort to quantify data. In grounded theory, the researcher normally aims at deriving a general abstract theory that is grounded within the participants of the study (Roberts, 2000). When conducting a research on the impact of home healthcare practice in India health care industry, the research will determine the concerns of the participants from the healthcare industry. The process of data collection will involve a series of data collection stages and refinement of categories of information. Alternatively a researcher can choose to rely on case studies so as to gather evidence based on his research. With regard to the topic on home healthcare services in India, the researcher will seek information for use in his research based on analysis of different home healthcare service providers. The case studies must be conducted over a period of time, and the researcher is required to collect data using a variety of data collection procedures. A researcher can also undertake phenomenological research as his quantitative research method. The phenomenological research requires that the researcher identifies the human experiences concerning certain phenomena as described by the participants in a study. Then research will aim to determine the lived

experiences so as to develop pattern and meaning so as to come up with a conclusive research. Case studies help a researcher understand the severity of the problem being talk about and enables the researcher to add more content with regards to what is already known from the research. Case studies enable a researcher to examine the phenomenon in its real-life context (Johnson, & Turner, 2007). Critics have, however, argued that case studies may fail to give the actual representation of the reality on the surface. The data gathered from the case studies may thus end up being too general to being used in representation of an entire population. There are also concerns that case studies may present biased perspectives, which in turn would lead to biased conclusions. The quantitative approach of a research study can also adopt a narrative approach of data collection, in which participants will provide stories on the impact of home health care services. It is the information that the participants provide that will form the basis of the research, analysis and conclusion.

Qualitative Approach

A qualitative research involves the collection and analysis of textual data. Textual data refers to data gathered using processes such as surveys, interviews, focus groups, observation, conversational analysis and ethnographic. The researcher formulates the research question and notes that the research questions are to be answered from a qualitative perspective. In the research topic presented, a question such as " what is happening in the healthcare industry in India?" would be a suitable research objective if the research took a qualitative perspective. Another question would be " how does the homes healthcare service affects health care

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services in India?" A research should engage in evidence searching to answer the question posed in the qualitative research (Greene, 2007). The researcher is required to present adequate details, and contextual descriptions to respond to the questions adequately. The qualitative approach to research may appear simpler than any other research method. This is an unfortunate assumption that most individuals make when selecting the research method for their research. Qualitative research is engaging and requires researchers selecting reliable data collection and analysis methods which will guarantee the trustworthiness of findings. The ability of a researcher to come up with an effective research study requires the researcher to careful planning the research design and encompasses all aspects of the research. Planning will involve encompassing of research factors s question and data collection strategies. Overall qualitative research methods emphasize on their natural setting meaning that emphasis is on the real life situations that phenomena presents itself. The natural setting means that a researcher in not to introduce any artificial experiments that may interrupt the normal occurrence of situations. A natural setting enables the researcher to capture a phenomenon as it really stands in the setting. In the selected topic, for instance, focus can be on the actual situation of the home healthcare services as manifested in India healthcare industry. Use of a natural setting ensures that the researcher does not make any assumptions (Collins, & O'Cathain, 2009). As mentioned earlier, there are many strategies that a researcher who adopts a qualitative study can use. Observation as a qualitative method allows the researcher to observe phenomena in its natural context. Observation permits the researcher to access relevant

documents and records that can be essential in the findings and analysis of data. Unfortunately, observation is more demanding than other research methods as the researcher may be overwhelmed by large quantities of information and data. Interviews can also be done to collect data for a qualitative research. The interviews can be formal or casual conversations. An unstructured interview permits the researcher, and the respondents to engage into deeper conversation on the issues at hand (Creswell, & Plano 2011). An unstructured interview permits the researcher to seek further clarification if an issue rises in the discussion. It also enables the respondents to respond beyond a yes or a no. A qualitative researcher can also use written materials as reliable sources of data. A researcher can use personal documents, questionnaires or official documents. Official documents include minutes of meetings, books, peer-reviewed journals and confidential documents.

A Mixed Approach to Research

A mixed approach to research methods requires the researcher to integrate qualitative and quantitative approach of addressing research questions in a single study. A researcher who selects the mixed method collects data using the qualitative and quantitative approach giving each approach equal priority. When a researcher makes a decision to use the mixed approach, he realizes that the sole use of either the qualitative or the quantitative approach will not result to reliable and conclusive findings that represent the actual populations. Qualitative methods allow the researcher to analyze the phenomenon under investigation. Qualitative methods help researchers understand the beliefs and theoretical models that the participants hold.

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Qualitative methods emphasize on concepts discovery and development in which the researcher strive to achieve a detailed comprehension of the phenomena under investigation. Quantitative methods, on the other hand, rely on the hypothesis before the beginning of the research study.

Quantitative methods enable researcher achieves a generalized view of the phenomena under investigations as well as the relations between variables.

A researcher who desires to adopt the mixed approach will integrate the two research method. However, the researcher must be able to balance the strengths and weakness of each of the research methods. The aim of

balancing the two research methods is to ensure that the findings reveals through the two research methods are compatible thus not jeopardize the

quality of the final outcome of the research paper. There are four basic

mixed methods designs that researchers can use in their studies. The first

mixed method design is the triangulation design in which a researcher brings together different research methods so that they can harmonize each other

and present viable findings. This means that data can be collected using

qualitative and quantitative methods then analyzed concurrently in the same

research query. In the home healthcare research, for instance, a researcher

can formulate equal number of quantitative and qualitative questions. The

qualitative questions will focus on the impact of home healthcare services

while the quantitative questions can focus on the rate of change as a result

of the presence of home healthcare practice (Creswell, & Clark, 2007). The

result segments will reveal the interconnectedness of the quantitative and

qualitative questions as the researcher will integrate the findings from both

methods. The second design that can be used is the embedded design of the

mixed research method allows for the concurrent and or sequential use of qualitative and quantitative data collection methods. The researcher selects which of the research methods is the strongest. A selection of qualitative design as the strongest choice means that the researcher will use the quantitative design as the supplemental data collection method. In the selected research topic, for instance, the researcher may select the qualitative questions to be the leading questions in the research. The quantitative research questions will thus serve a supplementary role supplying the qualitative question with additional information. The third method in the mixed research method is the explanatory mixed method which involves focusing on quantitative method of data collecting based upon the qualitative method of research. Qualitative results serve to explain the quantitative results. For instance, a researcher may provide statistical analysis of the improvement of India healthcare industry with the presence of home healthcare services (Bazeley, 2002). The researcher may also conduct interviews which he will use to analyze the qualitative component as provided in numerical results. The fourth design is the exploratory design in which the research takes a qualitative approach; then the findings are validated from a quantitative perspective. The qualitative phase of data collection focuses on the main factors of the research while the quantitative phase focuses on the putting the research on a wider perspective. This helps the research have an objective overview and represent a diverse sample.

Strengths of a Mixed Method of Research

The Mixed method of research strengthens a research as it enables the researcher to review the content of the research topic from all possible

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spheres. A researcher is also able to depend on more than one strategy to complete the research process and the analysis. A research relying of a wide array of approaches in his research is also able to focus on one process and verify the accuracy of data collected. A mixed approach to research design enables the researcher to rely on one type of research t support another. Findings from a qualitative research can be used to support findings gathered using the quantitative approach. The mixed research approach enables the researcher to combine the strengths of qualitative and the quantitative methods under one research (Ivankova, & Stick, 2006). The qualitative research method and the quantitative research have their distinct strengths and weaknesses. A researcher who integrates the two methods is able to capitalize on their strength and avoid their weaknesses.

Conclusion

The topic " The impact of the home health care practice in India healthcare industry-An action research" is a wide topic that requires the researcher to engage in a rigorous exercise of research, data collection and analysis. The findings that are presented in the research must demonstrate the actual of the healthcare industry situation in India. The qualitative research method enables the researcher to analyze the situation as it is in its natural status while the quantitative study focuses on statistical findings. The combinations of the two methods present the mixed method that allows the researcher to use the theoretical and statistical data to come up with findings that represent the actual situation. The above research can be adequately covered using the mixed method approach where statistical and theoretical

data will be utilized to collect data on the actual impact of the home health care practice in India.