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COURSE NAME/CODE: PHA 406 (RESEARCH METHODS AND RESEARCH ETHICS)

ASSIGNMENT

Explain the various research methods and how they can be applied.

ANSWER

According to Earl Robert Babbie, “Research is a systematic inquiry to describe, explain, predict, and control the observed phenomenon”. Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic.

Research involves inductive and deductive methods. Inductive research methods are used to analyze an observed event. They are associated with qualitative research. Deductive methods are used to verify the observed event. They are more commonly associated with quantitative research.

TYPES OF RESEARCH METHODS

There are different types of research methods which use different tools for data collection. They are:

1. Qualitative Research Method.
2. Quantitative Research Method.
3. Mixed Methods Research.
4. Qualitative Research Method

Qualitative Research gathers data about previous experiences, emotions or behaviors, and the meanings individuals attach to them. It assists in enabling researchers to gain a better understanding of complex concepts, social interactions or cultural phenomena. This type of research is useful in the exploration of how or why things have occurred, interpreting events and describing actions.

It can also be defined as a method that collects data using conversational methods. Participants are asked open-ended questions. The responses collected are essentially non-numerical. This method not only helps a researcher understand what participants think but also why they think in a particular way.

The techniques or tools used for gathering research data in respect to this method includes:

* Interviews: these can be structured, semi-structured or unstructured in-depth sessions with the researcher and a participant.
* Focus groups: with several participants discussing a particular topic or a set of questions. Researchers can be facilitators or observers.
* Observations: On-site, in-context or role-play options.
* Document analysis: Interrogation of correspondence (letters, diaries, emails etc.) or reports.
* Oral history or life stories: Remembrances or memories of experiences told to the researcher.

1. Quantitative Research Method

This research gathers numerical data which can be ranked, measured or categorized through statistical analysis. It assists with uncovering patterns or relationships, and for making generalizations. This type of research is useful for finding out how many, how much, how often, or to what extent.

It can also be defined as a method which deals with numbers and measurable forms. It uses a systematic way of investigating events or data. It is used to answer questions in terms of justifying relationships with measurable variables to either explain, predict, or control a phenomenon.

The techniques or tools used for gathering research data in respect to this method includes:

* Surveys or questionnaires: which ask the same questions to large numbers of participants or use Likert scales which measure opinions as numerical data.
* Observation: which can either involve counting the number of times a specific phenomenon occurs, or the coding of observational data in order to translate it into numbers.
* Document screening: sourcing numerical data from financial reports or counting word occurrences.
* Experiments: testing hypotheses in laboratories, testing cause and effect relationships, through field experiments, or via quasi- or natural experiments.

1. Mixed Methods Research

Mixed Methods Research integrates both Qualitative and Quantitative Research. It provides a holistic approach combining and analyzing the statistical data with deeper contextualized insights. Using Mixed Methods also enables Triangulation, or verification, of the data from two or more sources.