

Virtual University of Pakistan

BT406

Research Methodology & Skill Enhancement

Midterm current & past papers solved

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BT406 Midterm Papers

1. Sources of Concept 2

Everyday culture is filled with concepts, but many of them have vague and unclear definitions. Likewise, the values and experiences of people in a culture may limit everyday concepts. Nevertheless, we borrow concepts from everyday culture; though these to be refined.

We create concepts from personal experiences, creative thought, or observation. The classical theorist originated many concepts like family system, gender role, socialization, self-worth, frustration, and displaced aggression. We also borrow concepts from sister disciplines.

2. Difference between dependant & independent variables. 2

Researchers who focus on causal relations usually begin with an effect, and then search for its causes. The cause variable, or the one that identifies forces or conditions that act on something else, is the independent variable. The variable that is the effect or is the result or outcome of another variable is the dependent variable (also referred to as outcome variable or effect variable). The independent variable is “independent of” prior causes that act on it, whereas the dependent variable “depends on” the cause.

It is not always easy to determine whether a variable is independent or dependent. Two questions help to identify the independent variable. First, does it come before other variable in time? Second, if the variables occur at the same time, does the researcher suggest that one variable has an impact on another variable? Independent variables affect or have an impact on other variables. When independent variable is present, the dependent variable is also present, and with each unit of increase in the independent variable, there is an increase or decrease in the dependent variable also. In other words, the variance in dependent variable is accounted for by the independent variable. Dependent variable is also referred to as criterion variable.

3. Rights of Participants in Study. 3

- To be told about the reasonably foreseeable risks of being in the study.
- To be told about the possible benefits of being in the study.
- To be told whether there are any costs associated with being in the study and whether you will be compensated for participating in the study.
- To be told who will have access to information collected about you and how your confidentiality will be protected.

- To be told whom to contact with questions about the research, about research-related injury, and about your rights as a research subject.

4. Theoretical Framework, Six Features? 3

A theoretical framework is conceptual model of how one theorizes or makes logical sense of the relationships among several factors that have been identified as important to the problem under study. These factors which may also be called as variables may have been identified through such processes as interviews with informants, observations, and literature survey. The theoretical framework discusses the interrelationships among the variables that are considered to be integral to the dynamics of the situation being investigated..

The Components of the Theoretical Framework:

There are six basic features that should be incorporated in any theoretical framework. These features are:

1. Make an inventory of variables
2. Specify the direction of relationship
3. Give a clear explanation of why we should expect the proposed relationships to exist.
4. Make an inventory of propositions
5. Arrange these propositions in a sequential order
6. Schematic diagram of the theoretical model

5. Difference between Exploratory and descriptive research. 5

You may be exploring a new topic or issue in order to learn about it. If the issue was new or the researcher has written little on it, you began at the beginning. This is called exploratory research. The researcher's goal is to formulate more precise questions that future research can answer. Exploratory research may be the first stage in a sequence of studies. A researcher may need to know enough to design and execute a second, more

systematic and extensive study.

Goals of Exploratory Research:

1. Become familiar with the basic facts, setting, and concerns;
2. Develop well-grounded picture of the situation;
3. Develop tentative theories, generate new ideas, conjectures, or hypotheses;
4. Determine the feasibility of conducting the study;
5. Formulate questions and refine issues for more systematic inquiry; and
6. Develop techniques and a sense of direction for future research.

For exploratory research, the researcher may use different sources for getting information like

- (1) experience surveys,
- (2) secondary data analysis,
- (3) case studies, and
- (4) pilot studies.

b. Descriptive Research

Descriptive research presents a picture of the specific details of a situation, social setting, or relationship. The major purpose of descriptive research, as the term implies, is to describe characteristics of a population or phenomenon. Descriptive research seeks to determine the answers to who, what, when, where, and how questions. Labor Force Surveys, Population Census, and Educational Census are examples of such research.

Descriptive study offers to the researcher a profile or description of relevant aspects of the phenomena of interest. Look at the class in research methods and try to give its profile – the characteristics of the students. When we start to look at the relationship of the variables, then it may help in diagnosis analysis.

Goals of Descriptive Research

1. Describe the situation in terms of its characteristics i.e. provide an accurate profile of a group;
2. Give a verbal or numerical picture (%) of the situation;
3. Present background information;
4. Create a set of categories or classify the information;
5. Clarify sequence, set of stages; and
6. Focus on 'who,' 'what,' 'when,' 'where,' and 'how' but not why?

7. Difference between cross sectional studies & longitudinal Studies. 5

Cross-Sectional Studies are carried out once and represent a snapshot of one point in time. Data are collected just once, perhaps over a period of days or weeks or months, in order to answer the research question.

Longitudinal study:

Longitudinal Studies are repeated over an extended period. The advantage of longitudinal studies is that it can track changes over time. For example, the researcher might want to study employees' behavior before and after a change in the top management, so as to know what effects the change accomplished. Here, because data are gathered at two different points in time, the study is not cross-sectional or of the one-shot kind, but is carried longitudinally across a period of time. Such studies, as when data on the dependent variable are gathered at two or more points in time to answer the research question, are called longitudinal. Longitudinal studies can be panel studies and cohort studies which were discussed earlier.

What is research?2

Research is the process of finding of finding solution to a problem after through study and analysis of the situational factors. It is gathering information needed to answer a question and thereby help in solving the problem.

What are characteristics of scientific method?3

1. Empirical
2. Verifiable
3. Cumulative
4. Deterministic
5. Ethical and ideological Neutrality
6. Statistical generalization
7. Rationalism

3. Rights of Participants in Study. 3

Sponsor's Ethics

Occasionally, research specialists may be asked by the sponsors to

participate in unethical behavior. Compliance by the researcher would be a breach of ethical standards. Some examples to be avoided are;

- Violating respondent confidentiality.
- Changing data or creating false data to meet the desired objective.
- Changing data presentation or interpretations.
- Interpreting data from a biased perspective.
- Omitting sections of data analysis and conclusions.

Making recommendations beyond the scope of data collected

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Very easy and accurate ans of this question is

Cross-sectional study

Both the cross-sectional and the longitudinal studies are observational studies. This means that researchers record information about their subjects without manipulating the study environment. In our study, we would simply measure the cholesterol levels of daily walkers and non-walkers along with any other characteristics that might be of interest to us. We would not influence non-walkers to take up that activity, or advise daily walkers to modify their behaviour. In short, we'd try not to interfere.

The defining feature of a cross-sectional study is that it can compare different population groups at a single point in time. Think of it in terms of taking a snapshot. Findings are drawn from whatever fits into the frame.

To return to our example, we might choose to measure cholesterol levels in daily walkers across two age groups, over 40 and under 40, and compare these to cholesterol levels among non-walkers in the same age groups. We might even create subgroups for gender. However, we would not consider past or future cholesterol levels, for these would fall outside the frame. We would look only at cholesterol levels at one point in time.

The benefit of a cross-sectional study design is that it allows researchers to compare many different variables at the same time. We could, for example, look at age, gender, income and educational level in relation to walking and cholesterol levels, with little or no additional cost.

However, cross-sectional studies may not provide definite information about cause-and-effect relationships. This is because such studies offer a snapshot of a single moment in time; they do not consider what happens before or after the snapshot is taken. Therefore, we can't know for sure if our daily walkers had low cholesterol levels before taking up their exercise regimes, or if the behaviour of daily walking helped to reduce cholesterol levels that previously were high.

Longitudinal study

A longitudinal study, like a cross-sectional one, is observational. So, once again, researchers do not interfere with their subjects. However, in a longitudinal study, researchers conduct several observations of the same subjects over a period of time, sometimes lasting many years.

The benefit of a longitudinal study is that researchers are able to detect developments or changes in the characteristics of the target population at both the group and the individual level. The key here is that longitudinal studies extend beyond a single moment in time. As a result, they can establish sequences of events.

To return to our example, we might choose to look at the change in cholesterol levels among women over 40 who walk daily for a period of 20 years. The longitudinal study design would account for cholesterol levels at the onset of a walking regime and as the walking behaviour continued over time. Therefore, a longitudinal study is more likely to suggest cause-and-effect relationships than a cross-sectional study by virtue of its scope.

In general, the research should drive the design. But sometimes, the progression of the research helps determine which design is most appropriate. Cross-sectional studies can be done more quickly than longitudinal studies. That's why researchers might start with a cross-sectional study to first establish whether there are links or associations between certain variables. Then they would set up a longitudinal study to study cause and effect.

*****GOOD LUCK*****