

Research Design and Measurement

1. What do you believe is the value of research design?

The research design stage can be compared to an initial stage of building. In the initial stage of building, architects must draw style, character, or shape of a building. Similarly, a researcher selects study question, measures, sample, data collection, and data analysis methods. This research design is similar to glue that sticks together different part of the research project and provide style, character, or shape of a building. Therefore, the research design is very important because it will lay blueprint for construction of building your research. Without a good research design, a researcher will be far away from expectation of fully addressing to answer the research questions.

2. Describe one research design and provide an example.

There are three research designs. They are (1) randomized experiment or true experiment, (2) a quasi-experimental design, and (3) a non-experimental design. Experimental designs are seen as concrete or rigorous research design. When considering the internal validity, the experiment design seems to be the gold standard one. When researcher would like to know cause-effect inferences, then the experiment design is the most appropriate method for research study.

When researcher would like to investigate if some program or treatment causes some outcome or outcomes to occur, then he is interested in having strong internal validity.

3. What is one of the variables considered in research design? Provide an example.

In a research design, a variable can be a cause that may have effect or outcome. For example, a chemical substance is causing a cancer. Then in an experiment design, the two groups of mice are tested. One group is given injection of that chemical substance and the other group, control group is not given any injection. After the injection within a time period, the two group were measured and compared. When the group given injection is found causing cancer, then a conclusion that this particular chemical causes cancer. The variable in this example is “causing cancer”.

Reference:

Trochim, William, M.K. Social Research Methods. 1997