Characteristics of a Good Research Design

149225
Omolleh, Tatiana Abby

September 27, 2024

Clarity of Purpose

The foundation of a good research design is in the research purpose. A clear purpose guides the research process, from selecting appropriate methods to deciding which data will be collected. A well-defined research question not only focuses the study but also ensures that the data collected will be relevant and meaningful to the study's objectives.

Reliability and Validity

Two factors in evaluating the quality of a research design are its reliability and validity. Reliability refers to the consistency of the study's findings. A reliable research method will yield the same results when repeated under similar conditions. This consistency ensures that the findings are not random or influenced by uncontrolled variables.

Validity refers to the level of which the study accurately measures what it is intended to measure. A good research design ensures both internal validity (accuracy within the study) and external validity (the extent to which results can be generalized to other settings or populations).

Minimization of Validity Threats

A research design needs to consider potential threats to validity and take steps to reduce them. Some of the most common threats include:

- **History**: Events occurring during the research period that may affect outcomes, such as a sudden social or economic change.
- **Selection**: Bias introduced when selecting participants with significant differences, leading to skewed results.

- **Testing**: Repeated exposure to the same tests may result in improved performance due to familiarity rather than actual change.

Minimizing these threats ensures that the study's findings are valid and not merely the result of external variables.

Appropriate Research Methodology

Another characteristic of a good research design is the selection of the appropriate methodology. Research can generally be divided into three categories:

- **Exploratory Research**: This is typically used when the researcher seeks to explore a problem or gather preliminary data. It is useful for generating hypotheses and establishing research priorities (Kumar, 2005).
- **Descriptive Research**: This method is focused on answering the questions of who, what, where, when, and how. It does not seek to explain why things happen but is valuable for understanding trends or characteristics within a specific population.
- **Experimental Research**: This is often used in scientific studies to explore cause-and-effect relationships. Experimental research designs involve manipulating one or more variables to see their impact on an outcome variable (Kothari, 2004).

Flexibility and Practicality

Lastly, a good research design must be flexible and practical. The research process can sometimes encounter unforeseen challenges, such as participant dropout or equipment malfunction. Therefore, the design should allow for adjustments without compromising the study's overall goals.

References

Kothari, C.R. (2004). *Research Methodology: Methods & Techniques* (2nd ed.). New Delhi: New Age International Publishers.

Kumar, R. (2005). *Research Methodology* (2nd ed.). London: Sage Publications.

Trochim, W. M. (2006). *The Research Methods Knowledge Base* (2nd ed.). Cincinnati, OH: Atomic Dog Publishing.

Yin, R.K. (2003). *Case Study Research: Design and Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.