



The Difference between Quantitative & Qualitative Research Studies

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Abstract: There are numerous differences between qualitative and quantitative measurement, in this paper the author will present some of them to get full understand about the differentiations between these two approaches.

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1. Introduction

Quantitative Research options have been predetermined and a large number of respondents are involved. By definition, measurement must be objective, quantitative and statistically valid. Simply put, it's about numbers, objective hard data. The sample size for a survey is calculated by statisticians using formulas to determine how large a sample size will be needed from a given population in order to achieve findings with an acceptable degree of accuracy.

Generally, researchers seek sample sizes which yield findings with at least a 95% confidence interval (which means that if you repeat the survey 100 times, 95 times out of a hundred, you would get the same response), plus/minus a margin error of 5 percentage points.

Whereas, qualitative Research is collecting, analyzing, and interpreting data by observing what people do and say. Whereas, quantitative research refers to counts and measures of things, qualitative research refers to the meanings, concepts, definitions, characteristics, symbols, and descriptions of things.

Qualitative research is much more subjective than quantitative research and uses very different methods of collecting information, mainly individual, in-depth interviews and focus groups. The nature of this type of research is exploratory and open-ended. Small numbers of people are interviewed in-depth and/or a relatively small number of focus groups are conducted.

Participants are asked to respond to general questions and the interviewer explores their responses to identify and define people's perceptions, opinions and feelings about the topic or idea being discussed and to determine the degree of agreement that exists in the group.

The quality of the finding from qualitative research is directly dependent upon the skills, experience and sensitive of the interviewer.

This type of research is often less costly than surveys and is extremely effective in acquiring information about people's communications needs and their responses to and views about specific communications.

Basically, quantitative research is objective; qualitative is subjective. Quantitative research seeks explanatory laws; qualitative research aims at in-depth description. Qualitative research measures what it assumes to be a static reality in hopes of developing universal laws. Qualitative research is an exploration of what is assumed to be a dynamic reality. It does not claim that what is discovered in the process is universal, and thus, replicable. Common differences usually cited between these types of research include.

In general, qualitative research generates rich, detailed and valid (process) data that contribute to in-depth understanding of the context. Quantitative research generates reliable population based and generalizable data and is well suited to establishing cause-and-effect relationships. The decision of whether to choose a quantitative or a qualitative design is a philosophical question.

Which methods to choose will depend on the nature of the project, the type of information needed the context of the study and the availability of resources (time, money, and human).

2. Quantitative Research

2.1. Objective / purpose

The purpose of quantitative research is to quantify data and generalize results from a sample to the population of interest, to measure the incidence of various views and opinions in a chosen sample

and sometimes followed by qualitative research which is used to explore some findings further.

2.2. Sample

Usually a large number of cases representing the population of interest. Randomly selected respondents.

2.3. Data collection

Structured techniques such as online questionnaires, on-street or telephone interviews.

2.4. Data analysis

Statistical data is usually in the form of tabulations. Findings are conclusive and usually descriptive in nature.

2.5. Outcome

Used to recommend a final course of action.

3. Qualitative Research

3.1. Objective / purpose

The purpose of qualitative data is to gain an understanding of underlying reasons and motivations, provide insights into the setting of a problem, generating ideas and/or hypotheses for later quantitative research and to uncover prevalent trends in thought and opinion.

3.2. Sample

Usually a small number of non-representative cases. Respondents selected to fulfil a given quota.

3.3. Data collection

Unstructured or semi-structured techniques e.g. individual depth interviews or group discussions.

3.4. Data analysis

Non-statistical.

3.5. Outcome

Exploratory and/or investigative. Findings are not conclusive and cannot be used to make generalizations about the population of interest. Develop an initial understanding and sound base for further decision making.

4. Conclusion

Quantitative Research options have been predetermined and a large number of respondents are involved. Qualitative Research is collecting, analyzing, and interpreting data by observing what people do and say

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References

1. American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th Ed.). Washington, DC: Author.
2. Imperial COE, 2006. John D. Anderson, Superintendent of Schools. *Qualitative and Quantitative Research*.
3. Broussard, L. (2006). Understanding Qualitative Research: A School Nurse Perspective. *The Journal of School Nursing*, 22(4), 212-218.

Appendix. Characteristics of Quantitative and Qualitative Research

Quantitative	Qualitative
Objective	Subjective
Research questions: How many? Strength of association? Hard science	Research questions: What? Why? Soft science
Literature review must be done early in study	Literature review may be done as study progresses or afterwards
Test theory	Develops theory
One reality: focus is concise and narrow	Multiple realities: focus is complex and broad
Facts are value-free and unbiased	Facts are value-laden and biased
Reduction, control, precision	Discovery, description, understanding. Interpretive
Measurable	Organismic: whole is greater than the parts
Mechanistic: parts equal the whole	Report rich narrative, individual; interpretation.
Report statistical analysis.	Basic element of analysis is words/ideas.
Basic element of analysis is numbers	Researcher is part of process
Researcher is separate	Participants
Subjects	
Context free	Context dependent
Hypothesis	Research questions
Reasoning is logistic and deductive	Reasoning is dialectic and inductive
Establishes relationships, causation	Describes meaning, discovery
Uses instruments	Uses communications and observation
Strives for generalization	Strives for uniqueness.
Generalizations leading to prediction, explanation, and understanding	Patterns and theories developed for understanding
Highly controlled setting: experimental setting (outcome oriented).	Flexible approach: natural setting (process oriented).

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