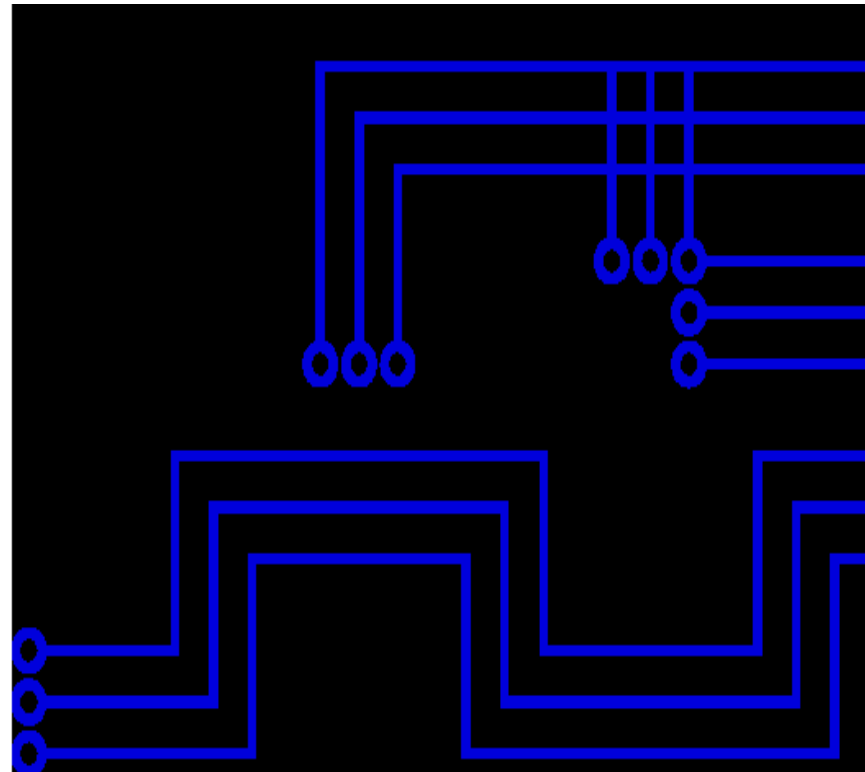


Qualitative and Quantitative Research

© Leonard Walletzký



Qualitative and Quantitative Research

Quantitative Research

- Quantitative research looks at patterns in numeric data.
- Quantitative research gathers data in numerical form which can be put into categories or measured in units of measurement.
- This type of data can be used to construct graphs and tables.

Qualitative Research

- Qualitative research gathers information that is not in numerical form.
- Qualitative data is typically descriptive data.
- When you think of qualitative data, Think of the word 'quality' – because in qualitative analysis we are taking a deep quality look at a phenomenon.

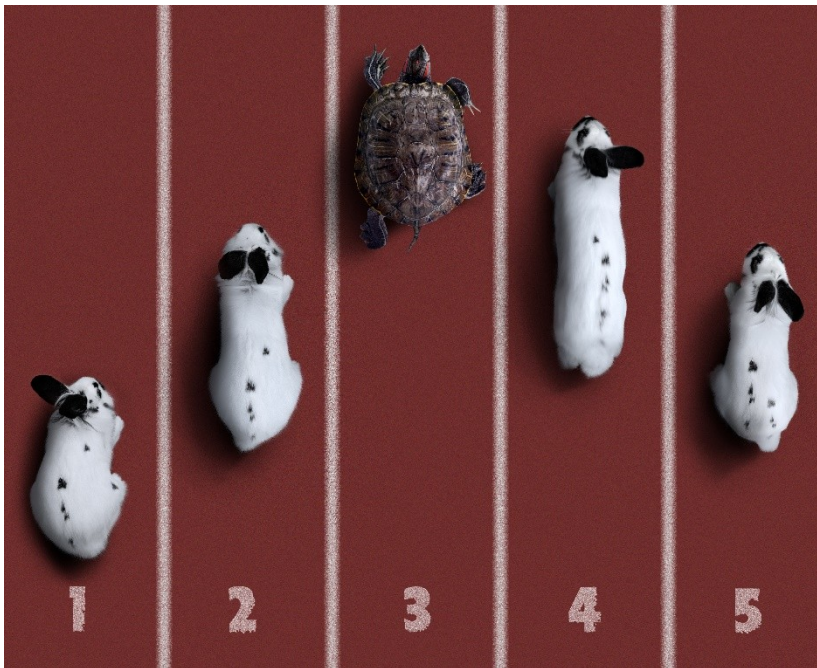
Quantitative Research Examples

Application forms

Closed ended
Questionnaires

IQ Tests

Measurements



Qualitative Research Examples

Diary accounts

Document review

Open ended Questionnaires

Unstructured interviews

Unstructured observations

Qualitative versus Quantitative

Purpose	Groups studied	Variables	Type of collected data
Forms of collected data	Results	Role of the researcher	Final Report
What is to be observed?	What are the type of questions asked?	How are the questions are put?	How the results are interpreted?

Qualitative versus Quantitative

Purpose

Qualitative

To understand & interpret social interactions.

Quantitative

To test hypotheses, look at cause & effect, & make predictions.

Qualitative versus Quantitative

Group Studied

Qualitative

Smaller & not
randomly selected.

Quantitative

Larger & randomly
selected.

Qualitative versus Quantitative

Variables

Qualitative

Study of the whole,
not variables.

Quantitative

Specific variables
studied.

Qualitative versus Quantitative

Type of Data Collected

Qualitative

Words, images,
or objects.

Quantitative

Numbers and
statistics.

Qualitative versus Quantitative

Forms of Data Collected

Qualitative

Qualitative data such as open-ended responses, interviews, participant observations, field notes, & reflections.

Quantitative

Quantitative data based on precise measurements using structured & validated data-collection instruments.

Qualitative versus Quantitative

Role of the Researcher

Qualitative

Researcher & their biases may be known to participants in the study, & participant characteristics may be known to the researcher.

Quantitative

Researcher & their biases are not known to participants in the study, & participant characteristics are deliberately hidden from the researcher (double blind studies).

Qualitative versus Quantitative

Results

Qualitative

Particular or specialized findings that is less generalizable.

Quantitative

Generalizable findings that can be applied to other populations.

Qualitative versus Quantitative

Final Report

Qualitative

Narrative report with contextual description & direct quotations from research participants.

Quantitative

Statistical report with correlations, comparisons of means, & statistical significance of findings.

Qualitative versus Quantitative

What is to be observed?

Qualitative

Quantitative

Qualities

Behavior

Complexities

Quantities

Scales

Trends

Qualitative versus Quantitative

What are the type of questions asked?

Qualitative

Quantitative

Why?

How?

How
many?

What?

Qualitative versus Quantitative

How are the questions are put?

Qualitative

Quantitative

Document
review

Participant
observations

Interviews

Focus group

Workshops

Application
forms

Questionnaires

IQ Tests

Measurements

Qualitative versus Quantitative

How the results are interpreted?

Qualitative

- Explore, explain, understand
- Narrative
- Particular
- Mainly inductive reasoning: conclusions can be drawn from the evidence no matter how incomplete

Quantitative

- Describe, measure, predict
- Statistical tables and chart
- Universal
- Mainly deductive reasoning: everything is known before conclusions can be drawn

Identifying a research problem.

Quantitative

- Description of trends or an explanation of variables' relationships.

Qualitative

- An exploration in which little is known about the problem.
- A detailed understanding of a central phenomenon.

Reviewing the literature

Quantitative

- Major role through suggesting the reporting questionnaire to be asked.
- Justifying the responses problem and the need for the direction of the study.

Qualitative

- Minor role in suggesting self regulating questionnaire (SRQ) to be asked.
- Justify the importance of studying the research problem.

Specifying a purpose for the research

Quantitative

- Be specific and narrow.
- Seek measurable, observable data on variables.

Qualitative

- Be general and broad.
- Seek to understand the participants' experiences

Collecting data

Quantitative

- Collecting data using instruments with preset questions and responses
- Collecting info from a large number of individuals.

Qualitative

- Collecting data using forms with general, emerging questions to permit the participant to generate responses.
- Gathering word(text) or image(picture) data.
- Collecting info from a small number of individuals or sites.

Analysing and Interpreting data

Quantitative

- Data analysis tends to consist of statistical analysis.
- Describing trends, comparing group differences, relating variables.
- Interpretation tends to consist of comparing results with prior predictions and past research.

Qualitative

- Text analysis.
- A description of themes.
- Stating the larger meaning of findings.

Reporting and Evaluating research

Quantitative

- Tend to use standard fixed structure and evaluation criteria.
- Take an objective and unbiased approach.

Qualitative

- A flexible, emerging structure and evaluative criteria.
- Take a subjective and biased approach.

What are the characteristics of each?

Quantitative

- Ask specific narrow questions
- Collects data from participants generally in numerical form.
- Analyzes numbers using statistics.
- Conducts the inquiry in unbiased, objective manner.

Qualitative

- Ask broad, general questions
- Collects data consisting largely of words (text) or image (picture).
- Descriptions and analysis of words for themes.
- Conducts inquiry in subjective, biased manner.

Conclusion

Qualitative and quantitative research differences

- Main aspects and features

When to use particular methods