

Similarities and differences of quantitative and qualitative research methods

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Quantitative Research embodies research derived from factual or measurable studies. The distinguishing feature that differentiates quantitative research from other methods is that the evidence is calculated mathematically rather than a product of empirical observation. The value that quantitative research provides is the accuracy with which it records information. When research is measured using quantitative methods, it has a heightened degree of credibility because it is objective rather than subjective. The limitations of a quantitative analysis, however, are that they are constrained by how results are measured or quantified. The measurements may, indeed, be accurate, however they may be myopic in their focus.

Quantitative research tends to disassociate itself from the research processes and metrics used to measure research questions may lack the depth of insight that a qualitative research provides. For example, quantitative research can describe the calculable features of an object, but it cannot describe the distinguished features of it that make it unique. It is to this extent that quantitative research is restricted, and thus should be used when problems rely on factual data to come to a resolution. Surveys with close-ended questions to collect statistical and measurable data regarding knowledge, people, attitudes, behaviors or occurrences is a key quantitative research methodology. This method of research can be completed digitally, anonymously, face to face, by telephone or post. This collection of comparable data provides variables and samples of research, which can be analyzed to conclude research problems. For example if a private high school is experiencing an increasing annual decline in pupil enrolment, surveying

can identify probable cause with close ended questions (i. e. competing schools may have higher enrolment).

Observation is another quantitative research method which validates objective research through observing and making calculations of something to account to a specific figure or sample size. For example counting the number of red vehicles that drove past the Hume Highway in 1 hr. Each quantitative method of research produces measurable and statistical research outcomes that can support and resolve research problems or lead to an ideal solution or discovery.

Qualitative research is the “‘ voice’ of the participants”, subjective and personal. It is the research that relies on the ‘ nature of the investigation to determine and unravel the research itself’. Although it moves away from positivism and objective truths, it concerns itself with interpretation of people’s behavior, experience and subjective accounts and why they ascribe them. Qualitative research embracing no barriers to empirical studies, dicdeeper understanding to a research problem and gaining a personal insight and knowledge behind a specific topic or issue. In-depth interviews, focus groups & content analysis are key qualitative research methodologies, each producing empirical and subjective research which can be analyzed to conclude a research issue or project.

In-depth interviews can be constructed anonymously or with consent, and can be processed in person, over the phone, public location, at home or workplace environment. Participants usually range from 5-15 people (much

smaller sample size than quantitative research) and the interview typically runs from 30-60 minutes. In each interview participants are encouraged to communicate their opinions and subjective accounts in depth, on the topic at hand, allowing research outcomes to be more informative and concise.

Focus Groups are planned discussions led by moderator, to gain insights and in depth knowledge from participants on a specific topic. Each participant must attain similar characteristics, experiences and life events, to produce effective results. This structured research requires from 8 – 12 participants and can take 60 – 90 minutes to complete. An example of a focus group in action, is a small group of participants who all drink Coca-Cola and reside in the same area, discussing thoughts on new product line brand names and flavors.

Content Analysis is an examination of textual, audio and visual content from multiple sources, to “interpret meaning from the content of text data and adhere to the naturalistic paradigm”. Quantifying the content is another approach of content analysis, which uses conventional and systematic measures to produce statistical and calculable data, a quantitative research method of content analysis. Although content analysis proves to be a method which can utilize both research forms, justifying whether you are interpreting the data as opposed to quantifying the data provides you with your desired outcome.

Both Quantitative and Qualitative have significantly different research methodologies and outcomes that facilitate research. But commonality

between the two is that both forms of research ask questions and gather data to produce research findings. Each methodology has valuable aspects which produce diverse findings, which have profound outcomes on research projects.