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QUESTION

Quantitative and qualitative data collection methods with relevant examples

ANSWER

Data collection is a process of collecting information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes.

**Quantitative data collection methods** are based in mathematical calculations in various formats. Methods of quantitative data collection and analysis include questionnaires with closed-ended questions, methods of correlation and regression, mean, mode and median and others.

Quantitative methods are cheaper to apply and they can be applied within shorter duration of time compared to qualitative methods. Moreover, due to a high level of standardisation of quantitative methods, it is easy to make comparisons of findings.

**Qualitative research methods**, on the contrary, do not involve numbers or mathematical calculations. Qualitative research is closely associated with words, sounds, feeling, emotions, colours and other elements that are non-quantifiable.

Qualitative studies aim to ensure greater level of depth of understanding and qualitative data collection methods include interviews, questionnaires with open-ended questions, focus groups, observation, game or role-playing, case studies etc.

**Qualitative data collection methods**

**Individual interview**

An individual interview is a conversation between two people that has a structure and a purpose. It is designed to elicit the interviewee’s knowledge or perspective on a topic. Individual interviews, which can include key informant interviews, are useful for exploring an individual’s beliefs, values, understandings, feelings, experiences and perspectives of an issue. Individual interviews also allow the researcher to ask into a complex issue, learning more about the contextual factors that govern individual experiences.

**Focus group discussions**

A focus group discussion is an organized discussion between 6 to 8 people. Focus group discussions provide participants with a space to discuss a particular topic, in a context where people are allowed to agree or disagree with each other. Focus group discussions allow you to explore how a group thinks about an issue, the range of opinions and ideas, and the inconsistencies and variations that exist in a particular community in terms of beliefs and their experiences and practices. You should therefore purposefully (the adjective is ‘purposive’) recruit participants for whom the issue is relevant. Be clear about the benefits and limitations of recruiting participants that represent either one population (e.g. school going girls) or a mix (e.g. school going boys and girls), and whether or not they know each other.

**Photovoice**

Photovoice is a participatory method that enables people to identify, represent and enhance their community, life circumstances or engagement with a program through photography and accompanying written captions. Photovoice involves giving a group of participant’s cameras, enabling them to capture, discuss and share stories they find significant.

**Direct observation**

Direct observation is one of the most passive qualitative data collection methods. Here, the data collector takes a participatory stance, observing the setting in which the subjects of their observation are while taking down notes, video/audio recordings, photos, and so on.

**Quantitative data collection methods**

**Questionnaires**

Paper-pencil-questionnaires can be sent to a large number of people and saves the researcher time and money.People are more truthful while responding to the questionnaires regarding controversial issues in particular due to the fact that their responses are anonymous. But they also have drawbacks.Majority of the people who receive questionnaires don't return them and those who do might not be representative of the originally selected sample.

Web based questionnaires : A new and inevitably growing methodology is the use of Internet based research. This would mean receiving an e-mail on which you would click on an address that would take you to a secure web-site to fill in a questionnaire. This type of research is often quicker and less detailed.Some disadvantages of this method include the exclusion of people who do not have a computer or are unable to access a computer.Also the validity of such surveys are in question as people might be in a hurry to complete it and so might not give accurate responses.

**Interviews**

In Quantitative research (survey research), interviews are more structured than in Qualitative research. In a structured interview, the researcher asks a standard set of questions and nothing more.