

LEARNING OBJECTIVES



► This lecture will help you to:

1. Recognise the meaning of research design, research methodology and research methods.
2. Recognise the key characteristics of qualitative research.
3. Distinguish between qualitative and quantitative methods in research.
4. Describe qualitative research approaches (designs).
5. Describe methods of data collection and analysis in a qualitative study.
6. Discuss the linkages between selection of method and types of research questions.



3 LECTURE OUTLINE

- ▶ Definition of research and research design.
- ▶ Definition of qualitative research.
- ▶ Qualitative versus quantitative research.
- ▶ Data collection in qualitative research.
- ▶ Sampling in qualitative research.
- ▶ Rigour and trustworthiness of qualitative research.
- ▶ Feasibility of the research project.



RESEARCH

- ▶ All research (Quantitative and Qualitative):
 - Seeks answers to questions.
 - Utilised a predetermined group of procedures (methods) to get these answers.
 - Collects data.
 - Generates results that were not determined in advance.
 - Generate results that are often applicable beyond the immediate boundaries of the study.



RESEARCH DESIGN

- ▶ The blueprint for performing the research.
- ▶ The scheme or action plan for achieving the objectives of the research (Research questions should be finalised before deciding the research design).
- ▶ The logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions.
- ▶ It includes how the study will be conducted, type of data that will be gathered, the means (tools and techniques) to be used to obtain these data, sample size, and research setting.



RESEARCH METHODOLOGY AND METHODS

- Research **Methodology**: The pathway or approach of action that justifies the selection and employment of certain methods (Adams, Khan, Raeside, & White, 2007).
- Research **Methods**: The means of execution of the research (Adams, Khan, Raeside, & White, 2007).



WHAT IS QUALITATIVE RESEARCH?

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- ➔ Qualitative research is linked to the **“Quality”** concept.
- ➔ Quality refers to the **What, How, When, Where, and Why of a thing.**
- ➔ Qualitative research refers to the meanings, concepts, definitions, characteristics, symbols, and descriptions of things.

2016)

(Lune & Berg,



9 WHAT IS QUALITATIVE RESEARCH? CONT'D

- ▶ Qualitative research provides a holistic view for the social phenomenon.
- ▶ Qualitative research answers “how” questions rather than “how many” :

“It looks at X in terms of how X varies in different circumstances rather than how big X is or how many Xs there are” (Anderson, 2010).

- ▶ Qualitative research seeks to understand a given research problem from the perspective of the local population it involves.
- ▶ It is effective in obtaining culturally specific information about values, opinions, behaviours, and social contexts of specific populations.
- ▶ Describes how people experience a given research issue.



WHAT IS QUALITATIVE RESEARCH? CONT'D

- Qualitative research offers unique opportunities for understanding complex situations (Austin & Sutton, 2014).
- Qualitative research is concerned with the concepts and idiosyncratic characteristics of a select group; therefore, the findings or theory may only be applicable to a similar group (Auerbach & Silverstein, 2003).
- Qualitative research seeks to understand the phenomenon under study in the context of the culture or the setting in which it has been studied (naturalistic) (Al-Busaidi, 2008).
- Adjectives like: **Rich, Deep, Thick** used when talking about qualitative research.





The Qualitative Perspective

“I want to understand the world from **your** point of view. I want to know what **you** know in the way **you** know it. I want to understand the meaning of **your** experience, to walk in **your** shoes, to feel things as **you** feel them, to explain things as **you** explain them. Will **you** become my teacher and help me understand?”

James P. Spradley (1979)





Bryon 1998 also mentioned the following:

major **characteristic** of qualitative research is that it enables a researcher to understand the social phenomenon the meanings attributed to them by participants in the social setting or context in which they occur.

According to Mattered 2001,

The **aim** of qualitative research is to identify the meaning of a social phenomenon the way the participants experience it and also perceive it



Characteristics of Qualitative Research

- ▶ The focus is on process, understanding, and meaning;
- ▶ The researcher is the primary instrument of data collection and analysis;
- ▶ The process is inductive;
- ▶ The product is richly descriptive.



14 Focus on Meaning and Understanding

- ▶ Qualitative researchers are interested in how people interpret their experiences, how they construct their worlds, what meaning they attribute to their experiences.

- ▶ **Patton (1985) explains:**

[Qualitative research] is an effort to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself, so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting — what it means for participants to be in that setting, what their lives are like, what 's going on for them, what their meanings are, what the world looks like in that particular setting — and in the analysis to be able to communicate that faithfully to others who are interested in that settingThe analysis strives for depth of understanding. (p. 1)



Focus on Meaning and Understanding (Continued)

- ▶ The key concern is understanding the phenomenon of interest from the participants' perspectives, not the researcher's.
- ▶ This is sometimes referred to as the *emic* or insider's perspective, versus the *etic* or outsider's view.
- ▶ Etic perspective corresponds with quantitative research.

PERSPECTIVES



Emic perspective
how *members* of a given culture
perceive their world



Etic perspective
how *non-members* of a group
interpret behaviour of a given
culture



Researcher as Primary Instrument

- ▶ A second characteristic of all forms of qualitative research is that *the researcher is the primary instrument for data collection and analysis*.
- ▶ Since understanding is the goal of this research, the human instrument, which is able to be immediately responsive and adaptive, would seem to be the ideal means of collecting and analysing data.
- ▶ Other advantages are that the researcher can expand his or her understanding through nonverbal as well as verbal communication, process information (data) immediately, clarify and summarize material, check with respondents for accuracy of interpretation, and explore unusual or unanticipated responses.



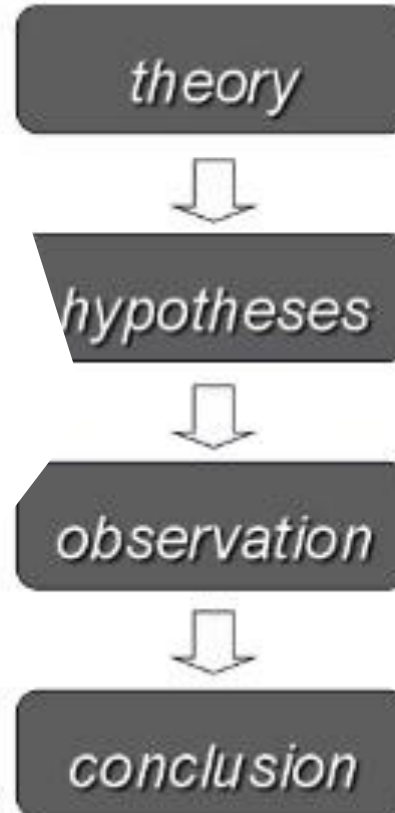
The process is inductive.....

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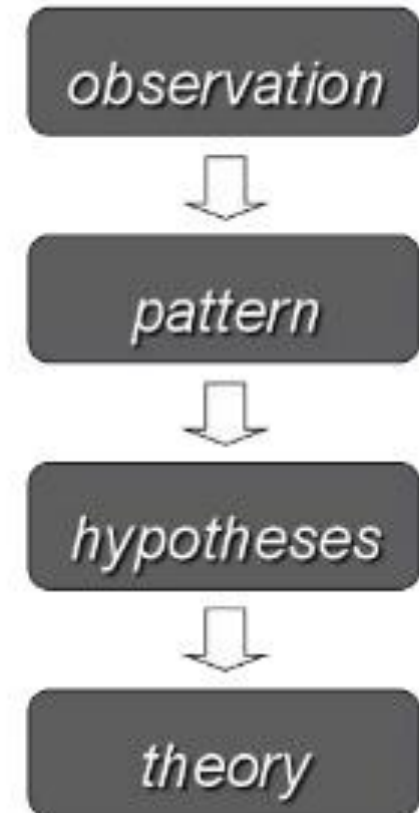
- Often qualitative researchers undertake a qualitative study because there is a lack of theory or an existing theory fails to adequately explain a phenomenon.
- Another important characteristic of qualitative research is that the process is inductive; that is, researchers gather data to build concepts, hypotheses, or theories rather than deductively testing hypotheses as in positivist (quantitative) research.
- Bits and pieces of information from interviews, observations, or documents are combined and ordered into larger themes as the researcher works from the particular to the general.

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Deduction



Induction



18 Rich Description of the end product

- The product of a qualitative inquiry is *richly descriptive*.
- Words and pictures rather than numbers are used to convey what the researcher has learned about a phenomenon.
- There are likely to be descriptions of the context, the participants involved, and the activities of interest.
- In addition, data in the form of quotes from documents, field notes, and participant interviews, excerpts from videotapes, electronic communication, or a combination of these are always included in support of the findings of the study. These quotes and excerpts contribute to the descriptive nature of qualitative research.

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3.1. Theme one: Contribution of the organisation

The contribution of the organisation was identified by participants as important in inhibiting or facilitating their capacity to recognise and respond to the patient with sepsis. Participants highlighted that organisational factors were often related to processes and models of care, and that the availability of resources impacted on their ability to recognise and respond to the patient with sepsis. For example;

"You don't actually think really about the patient's well-being. You know they're unwell, but you don't um you're more interested and the pressures about the [patient] flow. The majority of our shift is all about flow, it's about flow of the inpatients by ambulance and looking at maybe it's because I have done a lot of BPIO [Business Practice Improvement Officer] stuff and NEAT [National Emergency Access Target] stuff I tend to look at the time a lot... From, a nursing point of view and it sounds really horrible to say out of my mouth, but I think that the patient comes second as the flow of the department comes first, which is against everything that you've trained for. It's so fast changing. You don't have the time and with flow your patients have been ripped out from under you and your getting new ones in. I just don't think that you've got time to fully assess them and work them up until the next one arrives". CN1

"Time constraints make nurses not have time to 'think' therefore being task orientated and less likely to recognise sepsis- not engaging your brain as much when you are busy, and task orientated. You write the observations down so all the boxes are ticked, patient can be moved into next area and so busy between different jobs that you are not actually thinking about what you are doing. You are not in a space to think as it is so fast". RN4

"When you are really busy you um, people go into auto pilot and then they're just as opposed to assessing what's actually on in their head they become more task orientated? in saying ok this is what I need to do and they focus more on putting the dots on the lines on a piece of paper rather than what the dots on the lines actually mean". NGP

QUALITATIVE VERSUS QUANTITATIVE

Qualitative research

Inductive
 Subjective
 Impressionistic
 Holistic, interdependent system
 Purposeful, key informants
 Not focused on generalization
 Aims at understanding, new perspectives
 Case studies, content and pattern analysis
 Focus on words
 Probing

Source: Based on Patton (1990) and Chisnall (2001)

Quantitative research

Deductive
 Objective
 Conclusive
 Independent and dependent variables
 Random, probabilistic sample
 Focused on generalization
 Aims at truth, scientific acceptance
 Statistical analysis
 Focus on numbers
 Counting



Table I. Qualitative versus quantitative research methods



Qualitative vs. Quantitative Research

	Qualitative Research	Quantitative Research
Purpose	Discover ideas; develop a detailed and in-depth understanding of a phenomenon	Test hypotheses or specific research questions
Approach	Observe and interpret	Measure and test
Data Collection Methods	Unstructured; free- forms	Structured; response categories provided
Researcher Independence	Researcher is intimately involved; results are subjective	Researcher is uninvolved; results are objective
Sample	Small samples – often natural setting	Large samples to allow generalization
Most often used in:	Exploratory research designs	Descriptive and causal research designs



QUALITATIVE VERSUS QUANTITATIVE (CONT'D)

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- Qualitative and quantitative methods give different, complementary pictures of the things we observe (Lune & Berg, 2016; Al-Busaidi, 2008)).
- Qualitative is linked to Quality WHEREAS Quantitative is linked to Quantity.
- Qualitative studies involve the systematic collection, organization, description and interpretation of textual, verbal or visual data (Hammarberg, Kirkman, & de Lacey, 2016).
- Quantitative studies generally involve the systematic collection of data about a phenomenon, using standardized measures and statistical analysis (Hammarberg, Kirkman, & de Lacey, 2016).



QUALITATIVE VERSUS QUANTITATIVE (CONT'D)

- ➔ Quantitative research leans toward “*what*” questions, while qualitative tends toward “*why*” and “*how*” (Lune & Berg, 2016).
- ➔ Ethical considerations are often more complex in qualitative research (Rappport et al., 2018).



23 WHY TO USE QUALITATIVE RESEARCH?

- The limitations (and criticism) of quantitative approaches have always been taken as a starting point to give reasons why qualitative research should be used (Flick, 2018).
- Qualitative research emphasises that human beings should be studied as agents capable of self reflection and giving meanings to their actions.



24 ESSENTIAL FEATURES OF QUALITATIVE RESEARCH

1. Perspectives of the participants and their diversity (Flick, 2018)
2. Reflexivity of the researcher (Flick, 2018).
3. Variety of approaches and methods in qualitative research (Flick, 2018).
4. Subjectivity (Leung, 2015) .
5. Focus on the whole (holistic picture) (Leung, 2015).
6. The methodology is flexible because it may use multiple methods to examine the same question or area ('triangulation').
7. Iteration
8. Qualitative research can complement quantitative data. For example, a qualitative phase of research might precede quantitative data collection in order to explore a new area, to generate hypotheses, or to help develop data collection instruments. In turn, qualitative research might follow a quantitative phase of research in order to elucidate and explain the 'numbers' or to probe the issues more in depth with a smaller number of individuals



Naturalistic Design

- Naturalistic ” if it took place in a real - world setting rather than a laboratory, and whatever was being observed and studied was allowed to happen “ naturally. ”
- In naturalistic inquiry the investigator does not control or manipulate what is being studied.



PURPOSES OF QUALITATIVE RESEARCH

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Qualitative Research Purpose



- Describe
- Understand
- Explain
- Identify
- Develop
- Generate



MAJOR TYPES OF QUALITATIVE RESEARCH

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- ➔ **Ethnographies**, in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting, primarily observational data. The research process is flexible and typically evolves contextually in response to the lived realities encountered in the field setting.
- ➔ **Case studies**, in which the researcher explores in depth a program, an event, a process, or one or more individuals.
- ➔ **Narrative research**, a form of inquiry in which the researcher studies the lives of the individuals and asks one or more individuals to provide stories about their lives.



MAJOR TYPES OF QUALITATIVE RESEARCH (CONT'D)

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- **Phenomenological research**, in which the researcher identifies the essence of human experiences concerning a phenomenon, as described by participants in a study. **Understanding the lived experiences** marks phenomenology as a philosophy as well as a method, and the procedure involves studying a small number of subjects through extensive and prolonged engagement to develop patterns and relationship of meanings. The most basic philosophical assumption was that *we can only know what we experience* by attending to perceptions and meanings ”.
- **Grounded theory**, in which the researcher attempts to derive a general, abstract theory of a process, action or interaction grounded in the views of participants in a study. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information.

(Creswell & Poth, 2007)



Qualitative Research Question

- ▶ Creswell's (2009) example of a script for a qualitative research central question:

(How or what) is the _____ ("story for" for narrative research; "meaning of" the phenomenon for phenomenology; "theory that explains the process of" for grounded theory; "culture-sharing pattern" for ethnography; "issue" in the "case" for case study) of _____ (central phenomenon) for _____ (participants) at _____ (research site).



Papers on various types of Qualitative research

- ▶ The tension between person centred and task focused care in an acute surgical setting: A critical ethnography.
- ▶ An investigation on physicians' acceptance of hospital information systems: a case study
- ▶ What do patients say about their physicians? An analysis of 3000 narrative comments posted on a German physician rating website
- ▶ The nurses and physicians perceptions of ethical self-care in their professional relationship with each other: A phenomenological study.
- ▶ Getting work done: a grounded theory study of resident physician value of nursing communication





DATA COLLECTION IN QUALITATIVE RESEARCH

- Observations
- Interviews
- Documents review/analysis



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QUALITATIVE DATA COLLECTION METHODS (CONT'D)

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- ▶ **Observations**, in which the researcher takes field notes on the activities and behaviour of the individuals at the research site. In these field notes, the researcher records in an unstructured or semi-structured way, activities at the research site.
- ▶ **Interviews**, the research conducts face to face interviews with participants, interviews participants by telephone or engages in focus group interviews with six to eight interviewees in each group. These interviews involve unstructured and generally open ended questions that are few in number and intended to elicit views and opinions from participants.
- ▶ **Document review/analysis**, the researcher may collect documents, these may be public documents (newspapers, reports, letters, mails)

(Creswell & Poth, 2007)



QUALITATIVE DATA ANALYSIS AND INTERPRETATION

- ➔ Data analysis in qualitative research is an ongoing process involving continual reflection about the data, asking analytic questions, and writing memos during the study.
- ➔ It is not sharply divided from other activities such as collecting data.

(Creswell & Poth, 2007)



QUALITATIVE DATA ANALYSIS

- The first step in qualitative analysis is to develop thorough and comprehensive descriptions of the phenomenon under study (thick descriptions)

(Dey,
2003)



Qualitative research process

- ▶ Select topic and problem- problem identification.
- ▶ Justify significance of study
- ▶ Design study
- ▶ Identify and gain access to subjects
- ▶ Select study subjects and data (purposive sampling)
- ▶ Analyse data
- ▶ Interpret results/conclusion



APPROACHES TO QUALITATIVE RESEARCH

- ▶ There is no 'right' way of doing qualitative research, but some approaches are more appropriate to certain research goals than others.
- ▶ Qualitative research design is **emergent**.
- ▶ The initial plan for research cannot be tightly prescribed, and that all phases of the process may change or shift after the researchers enter the field and begin to collect data.



Quantitative Versus Qualitative (study design)

	Quantitative	Qualitative
Flexibility in study design	<p>Study design is stable from beginning to end</p> <p>Participant responses do not influence or determine how and which questions researchers ask next</p> <p>Study design is subject to statistical assumptions and conditions</p>	<p>Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions)</p> <p>Participant responses affect how and which questions researchers ask next</p> <p>Study design is iterative, that is, data collection and research questions are adjusted according to what is learned</p>



WHAT RESEARCH QUESTION CAN QUALITATIVE RESEARCH BEST ANSWER?

► Consider the following:

- 'Lived experience'.
- 'Insider' perspective of reality (emic).
- Emic approach refers to interpretation of the data from the perspective of the population under study (Astalin, 2013).
- Context/ meaning oriented rather than measurement oriented. The information gathered by actually talking directly to people and seeing them behave and act within their context.



QUALITATIVE SAMPLING

- ▶ Selection of a sample is a key element of a study design.
- ▶ Usually **non-probability** (purposive or convenience) sampling.
- ▶ Convenience sampling allows the researcher to select participants who are readily accessible or available.
- ▶ Purposive sampling avails of accessible participants, but it provides the **additional advantage** of facilitating the selection of participants whose qualities or experiences are required for the study.

Doody, 2017)

(Bradshaw, Atkinson, &



RIGOUR OF QUALITATIVE RESEARCH

- Rigour refers to the quality of the research.
- Strategies that help in achieving rigour in qualitative research.
 1. Clear descriptions of the sample necessary for the study to be meaningful.
 2. An indication of how and why the sample was chosen.
 3. Engagement with others, such as multiple researchers, in order to code or discuss data widely.
 4. The use of quotations in the representation of data findings.
 5. An assessment of a researcher or group of researchers' assumptions about the data
 6. Peer review of findings.
 7. Clearly defined study design.
 8. Triangulation (examining the phenomenon from different angles; measures, methods, researchers).



TRUSTWORTHINESS OF QUALITATIVE RESEARCH

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- Trustworthiness refers to the assessment of the quality and worth of the complete study.
- Help to determine how study findings reflect the aims of the study, according to the data provided by respondents.

- **Trustworthiness has four components:**
 1. **Credibility (VS internal validity):** the confidence that can be placed in the truth of the research findings. Credibility establishes whether the research findings represent plausible information drawn from the participants' original data and is a correct interpretation of the participants' original view
 2. **Transferability (VS external validity):** refers to the possibility that a qualitative study's theoretical position can be used in other contexts, or with other population groups and that findings can be applied to other contexts, cohorts or population groups.
 3. **Dependability (VS reliability):** which refers to whether a study's findings could be achieved, and the working methods repeated, were another researcher to conduct the same study.
 4. **Confirmability (VS objectivity):** ensures that a study's findings are clearly representative of the participants' views, rather than the researchers' preferences.

(Rapport et al., 2018)





Rigor and Quality in Research Methods

Quantitative

- ▶ Internal Validity
- ▶ External Validity
- ▶ Reliability
- ▶ Objectivity

Qualitative

- ▶ Credibility (truth value)
 - ▶ Transferability (applicability)
 - ▶ Dependability (consistency)
 - ▶ Confirmability (neutrality)
-





Criterion

Strategy employed

Credibility

- Prolonged engagement
- Peer briefing
- Triangulation
- Member checks

Transferability

- Providing thick description
- Purposive sampling

Dependability

- Create an audit trail
- Triangulation

Confirmability

- Triangulation
- Practise reflexivity



FEASIBILITY

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- ▶ The feasibility of research projects must be considered early on in the design phase of a study, in order to determine whether the research is likely to be successfully completed.
- ▶ Researchers need to consider staffing requirements for data collection, and analysis, and the presentation of results, as well as budget constraints, and required time frames.
- ▶ For example, asking a group of participants to complete a one hundred-page questionnaire survey or attend a two-day focus group meeting is unlikely to be considered feasible by most people.
- ▶ The scope of the project must also be feasible, with refinement of research questions to a focused topic.
- ▶ When considering the feasibility of research, the limitations of researcher expertise must also be taken into account.

(Rapport et al.,

2018)



LIMITATIONS OF QUALITATIVE RESEARCH

- ▶ The main limitation of qualitative research is that their findings cannot be extended to wider populations with the same degree of certainty that quantitative analyses can (**limited generalisability**) .

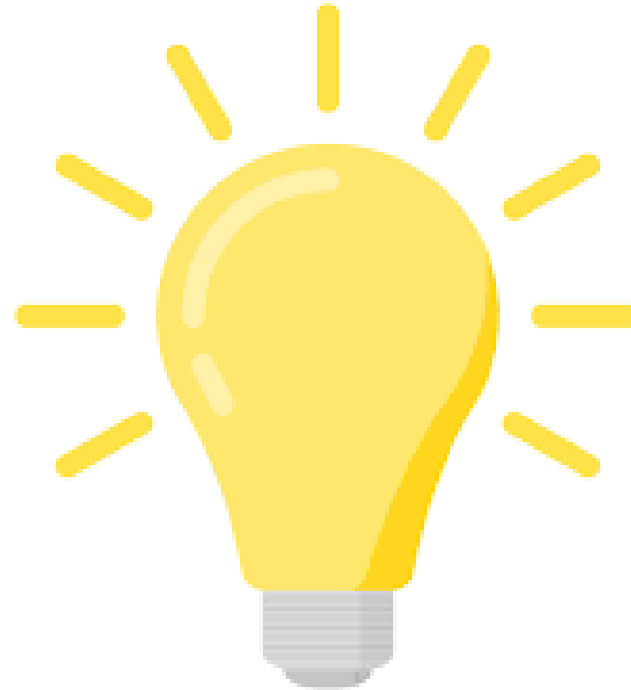
(Atieno, 2009)



Check Your Understanding Question

Which of the following is true about qualitative research?

- A. Data are usually collected in a laboratory setting.
- B. Focus is on studying the “whole”.
- C. Focus is on generalisation.
- D. Qualitative research is deductive.



- Answer: **B**
- Qualitative research focuses on understanding the whole, which is consistent with the holistic philosophy.



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