

• **Research:** a planned course of action that aims to understand a phenomenon or find answers to research questions (Johnston, 2010).

• All research (Quantitative & 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 **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.

• Research **Methods**: The **means** of execution of the research.

### WHAT IS QUALITATIVE RESEARCH?

• Qualitative research is linked to the "Quality" concept.

• Quality refers to the **How and Why** of a thing.

• Qualitative research refers to the **meanings, concepts, definitions, characteristics, symbols, and descriptions of things**.

• 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".

• 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.

• **Offers unique opportunities for understanding complex situations** (Austin & Sutton, 2014).

• 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.

• Qualitative research is concerned with the concepts and idiosyncratic characteristics of a select group; therefore, the findings or theory may only applicable to a similar group

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

## 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)

### 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** استقرائي;
- **The product is richly descriptive.**

### 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:

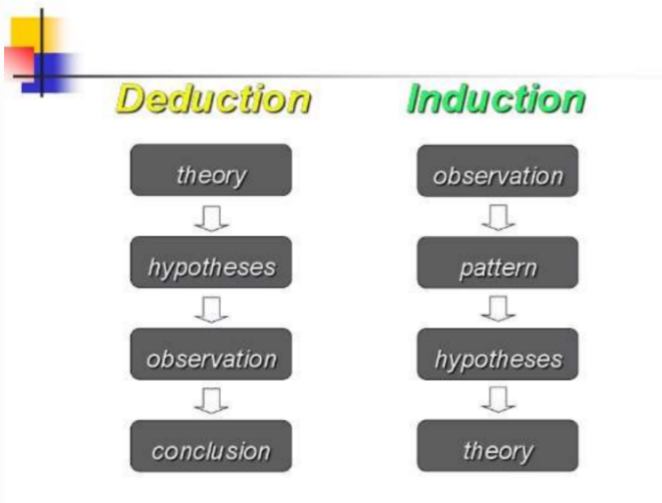
[Qualitative research] is an effort to understand situations **in their uniqueness** as part of a particular context and the interactions there. This understanding is **an end** in itself, so that **it is not attempting to predict** what may happen in the future necessarily, but to understand **the nature** 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 setting. **The analysis strives for depth of understanding.**

- 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.**

### 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, & **explore unusual or unanticipated responses.**

The process is inductive.....



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 see you're more interested and the pressure 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 BPFO [Business Practice Improvement Office] 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". CNS

"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 are, 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 oh 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". NGR

- 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.**

**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 contribute to the descriptive nature of qualitative research.

**QUALITATIVE VERSUS QUANTITATIVE**

- Qualitative and quantitative methods give

Qualitative research	Quantitative research
Inductive	Deductive
Subjective	Objective
Impressionistic	Conclusive
Holistic, interdependent system	Independent and dependent variables
Purposeful, key informants	Random, probabilistic sample
Not focused on generalization	Focused on generalization
Aims at understanding, new perspectives	Aims at truth, scientific acceptance
Case studies, content and pattern analysis	Statistical analysis
Focus on words	Focus on numbers
Probing	Counting

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

	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

Table 1. Qualitative versus quantitative research methods

**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.
- **Quantitative** research leans toward “**what**” questions, while **qualitative** tends toward “**why**” and “**how**”.
- **Ethical considerations are often more complex in qualitative research.**

### 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.
- Qualitative research emphasises that **human beings should be studied as agents capable of self reflection and giving meanings to their actions.**

### ESSENTIAL FEATURES OF QUALITATIVE RESEARCH

1. Perspectives of the participants and their diversity.
2. Reflexivity of the researcher.
3. Variety of approaches and methods in qualitative research.
4. Subjectivity.
5. Focus on the whole (holistic picture).
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:

- Describe • Understand • Explain • Identify • Develop • Generate.



### MAJOR TYPES OF QUALITATIVE RESEARCH:

- **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.

- **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, 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.

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.**
- 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 6 to 8 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)

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

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

## WHAT RESEARCH QUESTION CAN QUALITATIVE RESEARCH BEST ANSWER?

- Consider the following:
- **'Lived experience'**.
- **'Insider'** perspective of reality (emic).
  - **Emic approach**: interpretation of the data from the perspective of the population under study.
- **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.

### 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. **Clearly defined study design**.
  7. **Triangulation** (examining the phenomenon from different angles; measures, methods, researchers).
  8. **Peer review of findings**.

### TRUST WORTHINESS OF QUALITATIVE RESEARCH:

- **Trust worthiness** 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.
- Trust worthiness has 4 components:
  1. **Credibility** مصداقية (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**): 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.

Rigor and Quality in Research Methods		Criterion	Strategy employed
<b>Quantitative</b>	<b>Qualitative</b>	<b>Credibility</b>	<ul style="list-style-type: none"> <li>• Prolonged engagement</li> <li>• Peer briefing</li> <li>• Triangulation</li> <li>• Member checks</li> </ul>
<ul style="list-style-type: none"> <li>▶ Internal Validity</li> <li>▶ External Validity</li> <li>▶ Reliability</li> <li>▶ Objectivity</li> </ul>	<ul style="list-style-type: none"> <li>▶ Credibility (truth value)</li> <li>▶ Transferability (applicability)</li> <li>▶ Dependability (consistency)</li> <li>▶ Confirmability (neutrality)</li> </ul>	<b>Transferability</b>	<ul style="list-style-type: none"> <li>• Providing thick description</li> <li>• Purposive sampling</li> </ul>
		<b>Dependability</b>	<ul style="list-style-type: none"> <li>• Create an audit trail</li> <li>• Triangulation</li> </ul>
		<b>Confirmability</b>	<ul style="list-style-type: none"> <li>• Triangulation</li> <li>• Practise reflexivity</li> </ul>



## FEASIBILITY:

- 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**.

## 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**).

## 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.

الموسيقى تُفسد القلب، تُثقل قراءة القرآن، تُصعب النوافل، تُشتت الذهن، تُثير الشهوات، تأخذ المرء لِبَقَعِ وَهْمِيَّةٍ، وهي زقية الفواحش والمعاصي؛ فهي كالورم لا يتعايش معه؛ بل يجب استئصاله.  
- قال الإمام ابن القيم -رحمه الله-: حُب الغِنَاءِ وَالْقُرْآنِ فِي قَلْبِ مُؤْمِنٍ لَا يَجْتَمَعَانِ.