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CMED 305

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# Qualitative Studies

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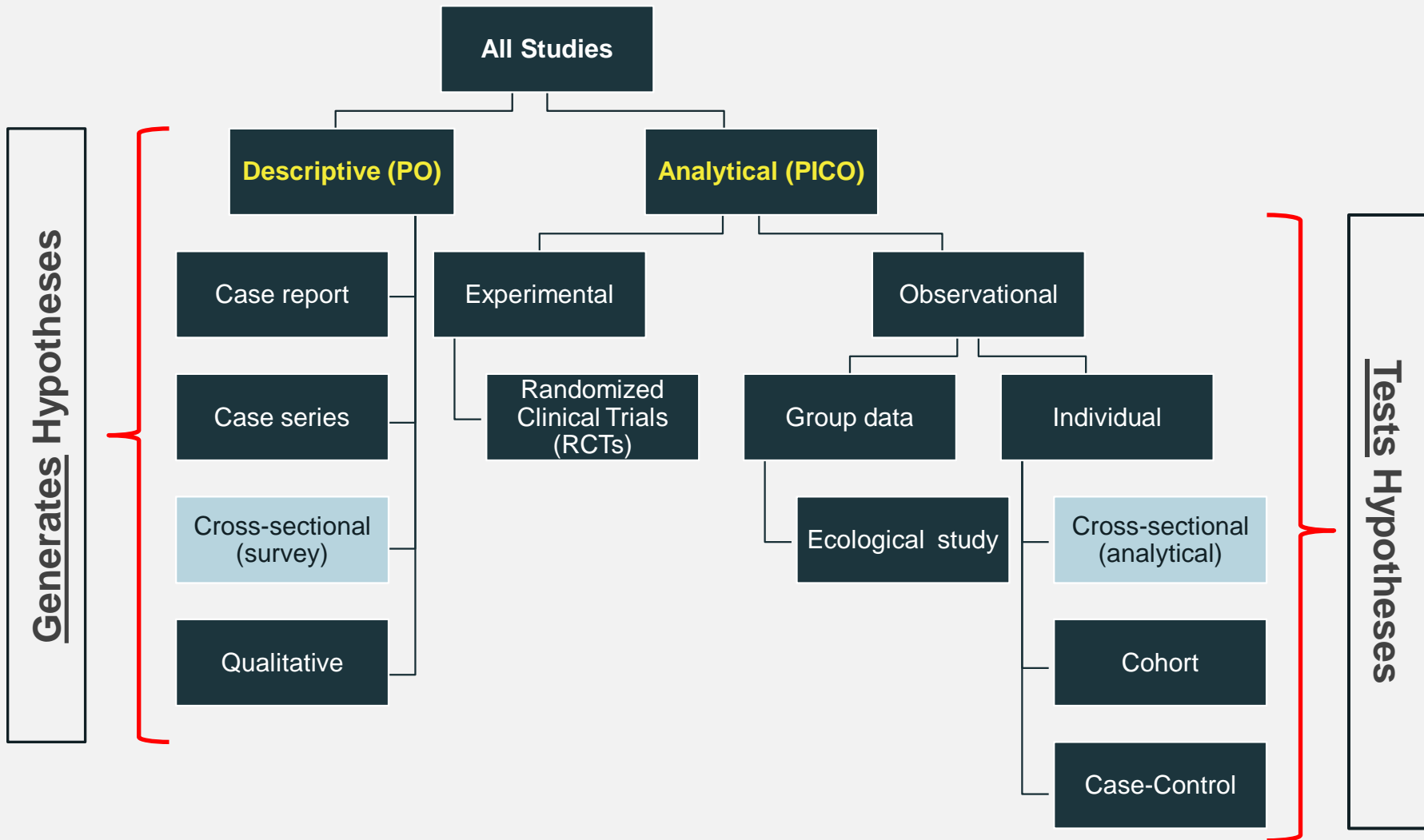
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**Learning Objectives:** By end of this session students will be able to:

1. Define qualitative research
2. Compare qualitative and quantitative research
3. Describe qualitative studies' methods, data collection and sampling
4. Identify steps in conducting qualitative studies
5. Describe the strengths and weaknesses of qualitative studies

# **1** Definition of Qualitative Research



Qualitative research study things in **their natural settings**, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

# { 2 Comparing Qualitative and Quantitative Studies }

	<b>Quantitative</b>	<b>Qualitative</b>
<b>General framework</b>	Seek to confirm hypotheses about phenomena (answer "how many?")	Seek to explore phenomena (answer "how?")
	Instruments use more rigid style of eliciting and categorizing responses to questions	Instruments use more flexible, iterative style of eliciting and categorizing responses to questions
	Use highly structured methods such as questionnaires, surveys, and structured observation	Use semi-structured methods such as in-depth interviews, focus groups, and participant observation
<b>Analytical objectives</b>	<ul style="list-style-type: none"> <li>• To quantify relationships</li> <li>• To predict causal relationships</li> <li>• To describe characteristics of a population</li> </ul>	<ul style="list-style-type: none"> <li>• To describe variation</li> <li>• To describe and explain relationships</li> <li>• To describe individual experiences</li> <li>• To describe group norms</li> </ul>
<b>Question format</b>	Closed-ended	Open-ended

	<b>Quantitative</b>	<b>Qualitative</b>
<b>Data format</b>	Numerical (obtained by assigning numerical values to responses)	Textual (obtained from audiotapes, videotapes, and field notes)
<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



# **3.1 Qualitative Studies: Methods**

Method	Focus
<b>Ethnography</b>	<u>Context or culture:</u> An ethnography is a description and interpretation of a cultural or social group or system. The research examines the group's observable and learned patterns of behavior, customs, and ways of life
<b>Narrative</b>	<u>Individual experience &amp; sequence:</u> The narrative approach weaves together a sequence of events, usually from just one or two individuals to form a cohesive story.
<b>Phenomenological</b>	<u>People who have experienced a phenomenon:</u> Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience
<b>Grounded Theory</b>	<u>Develop a theory from grounded in field data:</u> You use primarily interviews and existing documents to build a theory based on the data. You go through a series of coding techniques to identify themes and build the theory. Sample sizes are often also larger - between 20 to 60 - with these studies to better establish a theory.
<b>Case Study</b>	<u>Organization, entity, individual, or event:</u> A case study involves a deep understanding through multiple types of data sources.

## **3.2 Qualitative Studies: Data Collection**

Data Collection Techniques	Key Features
<b>Interviews</b>	<ul style="list-style-type: none"> <li>• “Semi-structured” interviews which involve a number of open ended questions based on the topic areas that the researcher wants to cover.</li> <li>• Allows probing</li> </ul>
<b>Focus groups</b>	<ul style="list-style-type: none"> <li>• During a focus group, a group of individuals - usually 6-12 people - is brought together in a room to engage in a guided discussion of a topic.</li> </ul>
<b>Observation</b>	<ul style="list-style-type: none"> <li>• Technique that can be used when data cannot be collected through other means, or those collected through other means are of limited value or are difficult to validate.</li> <li>• For example, in interviews participants may be asked about how they behave in certain situations but there is no guarantee that they actually do what they say they do. Observing them in those situations is more valid: it is possible to see how they actually behave.</li> </ul>
<b>Collection of documented material such as letters, diaries, photographs</b>	<ul style="list-style-type: none"> <li>• These can be particularly useful in trying to understand the philosophy of an organization as may be required in ethnography.</li> </ul>
<b>Open ended questions in questionnaires</b>	<ul style="list-style-type: none"> <li>• Open ended questions, responses to which are to be analyzed qualitatively, may be included in questionnaires even though the majority of the questionnaire will generate quantitative data.</li> <li>• The open ended questions usually require that responses, which reflect the opinions of the respondents, be written in blank spaces.</li> <li>• This form of data may give useful guidance to a researcher planning an interview or focus group study.</li> </ul>

# 3.3 Qualitative Studies: Sampling

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- In qualitative research, only a sample (that is, a subset) of a population is selected for any given study.
  - The study's research objectives and the characteristics of the study population (such as size and diversity) **determine which and how many people to select.**
  - The three most common sampling methods:
    - Purposive sampling
    - Quota sampling
    - Snowball sampling
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Sampling Method	Features
<b>Purposive sampling</b>	<ul style="list-style-type: none"><li>• It groups participants according to <b>preselected criteria relevant to a particular research question</b> (for example, HIV-positive women in Capital City).</li><li>• Sample size depends on the resources and time available, as well as the study's objectives.</li><li>• Purposive sample sizes are often determined on the basis of theoretical saturation.</li></ul>
<b>Quota sampling*</b>	<ul style="list-style-type: none"><li>• Sometimes considered a type of purposive sampling.</li><li>• In quota sampling, we decide while designing the study how many people with which characteristics to include as participants.</li><li>• Characteristics might include age, place of residence, gender, profession, marital status, use of a particular contraceptive method, HIV status, etc.</li></ul>
<b>Snowball sampling</b>	<ul style="list-style-type: none"><li>• Participants or informants with whom contact has already been made use their social networks to refer the researcher to other people who could potentially participate in or contribute to the study. (<b><u>Gatekeepers!</u></b>)</li></ul>

\*quota sampling is more specific with respect to sizes and proportions of subsamples, with subgroups chosen to reflect corresponding proportions in the population

## How do you know when you have an adequate sample?

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- Ideally this will occur when you have reached theoretical saturation
- Theoretical saturation: occurs when new data from new cases do not contribute to the development of emerging theory even after you have tried to ensure that your new cases are those most likely to extend or challenge your ideas
- In practice, if you are applying for funding for a study, you will need to specify how many participants you are likely to need. Theoretical saturation will probably be reached after 20-60 interviews



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How to conduct a qualitative  
study?

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# Steps in conducting a qualitative study



1- Identifying a research problem / stating the problem



2- Reviewing the literature



3- Specifying a purpose and research questions



4- Collecting the data



5- Analyzing the data



6- Determining the quality of data



7- Reporting the research



## 3- Specifying a purpose and research questions

- Qualitative purpose statement and research questions:
  - Broad and general
  - Open ended: e.g. *“How do students react to violence on campus?”*
  - Seek participants’ experiences.
- Research purpose:
  - The purpose of this \_\_\_\_\_(phenomenological, grounded theory, case study, ethnographic) study is to \_\_\_\_\_ (understand, describe, develop, discover) the \_\_\_\_\_ (central focus for the study) for \_\_\_\_\_(the unit of analysis: person, process, groups, site).

## 5- Analyzing the data

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- Step 1: Organize and prepare the data for analysis.
- Step 2: Read through all the data to obtain a general sense of the information and to reflect on its overall meaning.
- Step 3: Begin detailed analysis with a coding process. **Coding** is the process of taking text data or pictures, segmenting sentences (or paragraphs) or images into categories, and labeling these categories with a term, often a term based on the actual language of the participant.
- Step 4: Use the codes to generate a description of the setting or people as well as categories or themes for analysis. Description involves a detailed rendering of information about people, place, or events in a setting. Researchers can generate codes for this description.
- Step 5: Advance how the descriptions and themes will be represented in the qualitative narrative.
- Step 6: Evaluate the lessons learned from the data and make interpretations (or meaning) of data.



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## How and Why Do Smokers Start Using E-Cigarettes? Qualitative Study of Vapers in London, UK:

The aims of the study were to (1) **describe how and why** smokers start to vape and what products they use; (2) **relate findings to the COM-B theory** of behaviour change (three conditions are necessary for behaviour change (B): capability (C), opportunity (O), and motivation (M)); and (3) to **consider implications** for e-cigarette policy research. **Semi-structured interviews** (n = 30) were conducted in London, UK, with smokers or ex-smokers who were currently using or had used e-cigarettes.

Wadsworth, E., Neale, J., McNeill, A., & Hitchman, S. (2016). How and why do smokers start using e-cigarettes? Qualitative study of vapers in London, UK. *International journal of environmental research and public health*, 13(7), 661.

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## Young adult e-cigarette users' reasons for liking and not liking e-cigarettes: A qualitative study:

**Objective:** To gain **an in-depth understanding** of what young adult electronic- or e-cigarette users like or dislike about e-cigarettes. We aimed to determine the reasons that may encourage young adults to use e-cigarettes or discourage them from using e-cigarettes.

**Design:** Twelve **focus group discussions** were conducted with 62 current daily e-cigarette users (63% men) of mean age = 25.1 years (standard deviation = 5.5). Data were analysed following principles of inductive content analysis.

**Results:** Results indicated 12 **categories of reasons** for liking e-cigarettes (e.g. recreation, smoking cessation) and 6 categories of reasons for not liking e-cigarettes (e.g. poor product quality, poor smoking experience).

Pokhrel, P., Herzog, T. A., Muranaka, N., & Fagan, P. (2015). Young adult e-cigarette users' reasons for liking and not liking e-cigarettes: a qualitative study. *Psychology & health, 30*(12), 1450-1469.

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**Strengths & Weaknesses**

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## Strengths

- Collect very rich data in an efficient manner rather than being limited to the responders to a set of pre-defined questions, it is possible to explore interesting concepts that can lead to novel theory by analyzing the entirety of a participant's interview/story/interaction.
- Lead to the generation of new theory from unexpected findings
- When combined with quantitative methods, qualitative research can provide a much more complete picture

## Weakness

- Poor quality qualitative work can lead to misleading findings.
- Qualitative research alone is often insufficient to make population-level summaries.
- Policy makers may not understand or value the interpretation and therefore may not recognize the importance of qualitative research.
- Time and labor-intensive.
- Ethical issues at all phases of the study.

# Thank you!

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