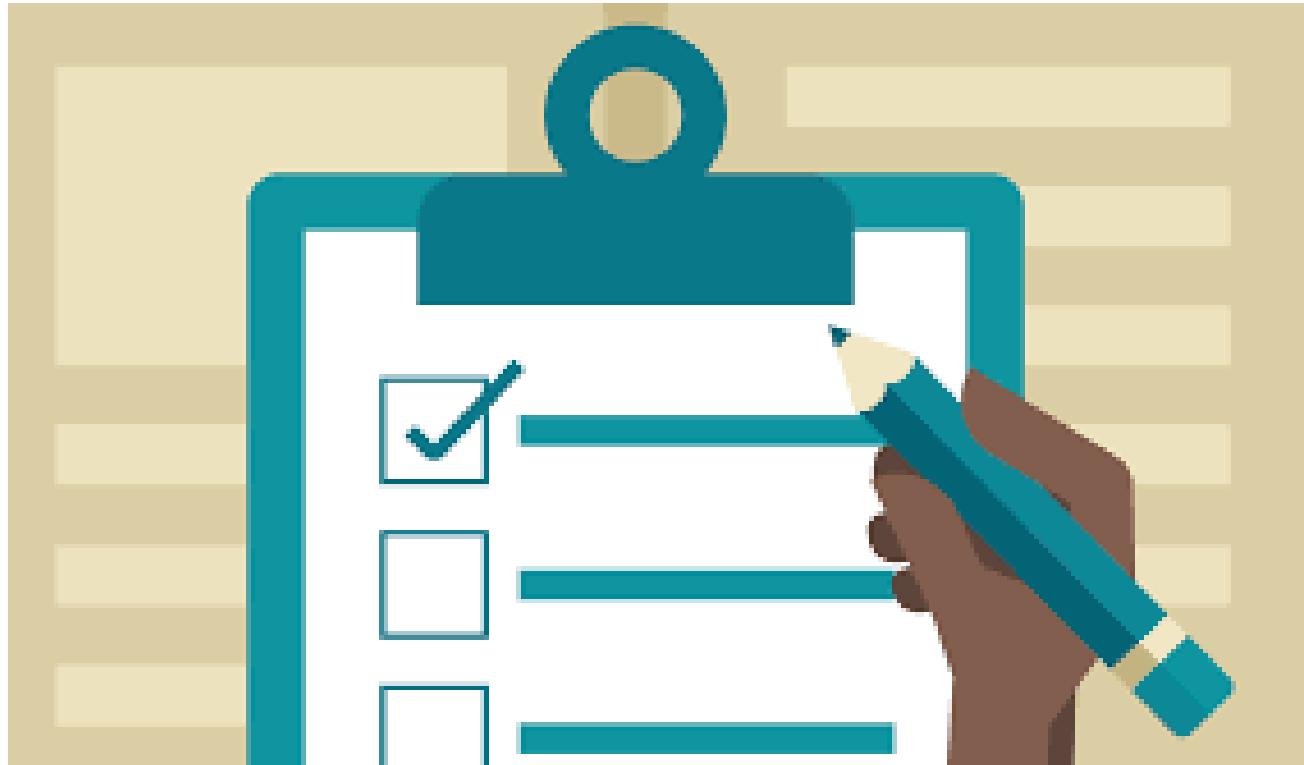


Learning objectives



- **After this lecture, you should be able to:**

1. Understand the definition of case study.
2. Identify data collection methods in case study research.
3. Describe the steps of performing case study research.
4. Identify the limitations of case study research.
5. Describe the details of ethnographic research.
6. Understand the aim of ethnographic research.

Case study research- What is a case?

- "A case is a **single instance**; a sample of one".
- Easton (2010) explains a case is a *phenomenon which is spatially delimited and that the unit is studied either at one point or over a bounded period of time.*
- Case can be individual, group, project, policy, institution, program.



Case Study Research (Definition)

- Case study research is a qualitative approach in which the investigator explores a **bounded** system (a case) or multiple bounded systems (cases) over time, through detailed, **in-depth data collection involving multiple sources of information** (e.g., observations, interviews, audio-visual material, and documents and reports), and reports a case description and case-based themes.



Other Definitions of Case Study

Author	Definition
Stake[8]	"A case study is both the process of learning about the case and the product of our learning" (p.237)
Yin[1, 27, 28]	"The all-encompassing feature of a case study is its intense focus on a single phenomenon within its real-life context...[Case studies are] research situations where the number of variables of interest far outstrips the number of datapoints" (Yin 1999 p. 1211, Yin 1994 p. 13)
	"A case study is an empirical inquiry that
	<ul style="list-style-type: none"> • Investigates a contemporary phenomenon in depth and within its real-life context, especially when
	<ul style="list-style-type: none"> • The boundaries between phenomenon and context are not clearly evident." (Yin 2009 p18)
Miles and Huberman[23]	"...a phenomenon of some sort occurring in a bounded context" (p. 25)
Green and Thorogood[29]	"In-depth study undertaken of one particular 'case', which could be a site, individual or policy" (p. 284)
George and Bennett[12]	"...an instance of a class of events [where] the term class of events refers to a phenomenon of scientific interest...that the investigator chooses to study with the aim of developing theory regarding causes of similarities or differences among instances (cases) of that class of events" (p. 17)"



Case study Research (continued)

- Conditions that lead to having more variables than data points in case study research:
 1. making an in-depth inquiry.
 2. studying conditions over time.
 3. covering contextual conditions.

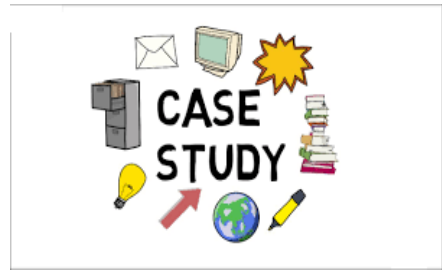
Case study Research (continued)

- Case studies have been long established in healthcare, medicine, anthropology, and psychology research.
- Case study research is effective to investigate and understand **complex issues** in real world settings.
- Usually, a case study is considered equivalent to a qualitative research method. A case study can be considered qualitative in the sense that it studies a smaller sample of something, but in some ways the case study can also be considered a **quantitative or mixed-methods study**.

Case study research is not exclusively concerned with qualitative methods.

- The case usually describes a series of events that reflect the activity or problem as it happened.

Case study research (Continued)



- The power of case study research is the ability to use **multiple sources and techniques for comprehensive depth and breadth of inquiry.**
- Document analysis, archival records, interviews, surveys and participant observation are considered the main data sources for case study research.
- the way researchers use case studies in their research varies which also has resulted in a broad variety in published case studies.
- Triangulation is a must.

Data triangulation

Data is collected at different times or from different sources in the study of a phenomenon.

Methodological triangulation

Different methods of data collection, commonly both qualitative and quantitative are combined in the study.

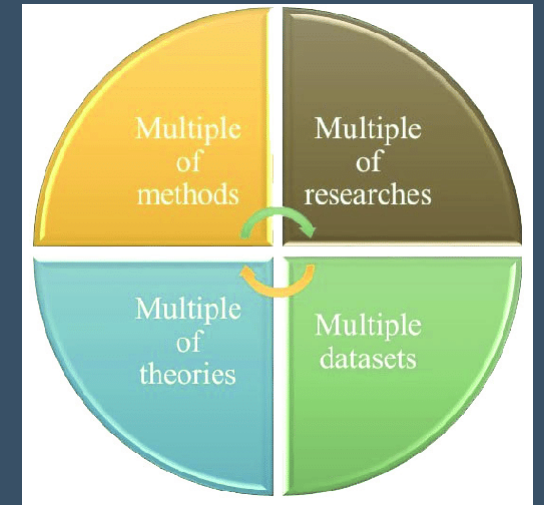
Four distinct types of triangulation

Investigator triangulation

Several researchers collect data independently on the same phenomenon and compare their findings

Triangulation of theories

The research phenomenon is examined from different theoretical perspectives, disciplines or sub—disciplines



Types of Triangulation



Case study research (continued)

- The importance of "...**maintaining 'empirical intimacy'**".
- One cannot replicate a case study since it is spatially and temporally bounded.
- Case studies **do not necessarily** have to include one single case, but can also involve multiple cases.
- a **single-case study** can help describing an existing phenomenon,
- while **multiple-case studies** can be a better ground for building theory from case studies – the phenomenon becomes more generalizable if it occurs in a number of cases- **Analytical (theoretical) generalisation**



GENERALISATION (Quantitative versus case study research)

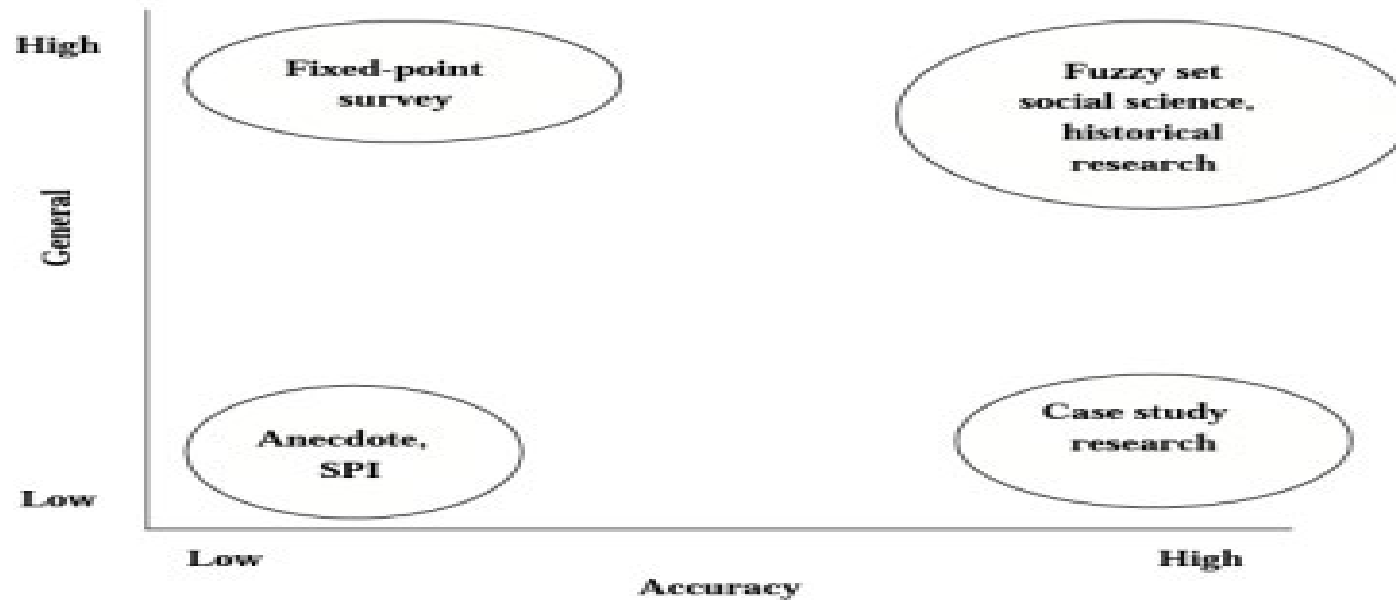


Figure 1: Research methods' attainment of objectives.

Source: Arch Woodside (2010, p.21)



Types of case study

Yin (2003) identifies three types of case studies:

- **Descriptive** case study aims to describe the phenomenon of interest within its context.
- **Exploratory (pilot)** case study aims to define questions and hypotheses- or to test out a research procedure- for a further piece of research, such as a large scale survey.
- **Explanatory** case study aims to reveal cause–effect associations of the studied phenomena and/or how events happen.



Exploratory versus Explanatory case study

- Exploratory case studies allow the investigation of complex unique phenomena where previous literature to guide the research is lacking.
- In situations, however, where background literature is able to provide a clearer direction for research, questions may be posed that indicate a more explanatory approach



How to perform a case study?

- Determine and define the research questions.
- Select the cases and determine data-gathering and analysis techniques.
- Prepare to collect data.
- Collect data in the field.
- Evaluate and analyse the data.
- Prepare the report

Step 1: Determine and Define the Research Questions

- The focus or intent is established once an intensive review of the relevant literature has been completed and the problem has been well identified.
- The importance of framing your research direction in the form of questions is that you are then driven to ***consider your methods***:
 - a. How would I answer those questions?
 - b. What information do I need?
 - c. how would I go about getting it?



Step 1: Determine and Define the Research Questions (continued)

- Good' research questions are those which will enable you to achieve your aim and which are capable of being answered in the research setting.
- Broad aims often remain the same. What changes and evolves is the set of research questions.

Step 1: Determine and Define the Research Questions (continued)

- Carefully formulated research question(s), informed by the existing literature and a prior appreciation of the theoretical issues and setting(s), are all important in appropriately and succinctly **defining the case**.
- Crucially, each case should have a **pre-defined boundary** which clarifies the nature and time period covered by the case study (i.e. its scope, beginning and end), the **relevant social group**, organisation or geographical area of interest to the investigator, **the types of evidence to be collected**, and the **priorities for data collection and analysis**.



Example

- Research questions might be:
 - What proportion of patients don't comply with medical advice on drugs?
 - Are there differences (i.e. age, social class) between different categories of patient?
 - Is age a factor?
 - Is the medical condition a factor?
- As you get into the research, as you get to talk to patients, doctors and practice nurses, other questions might emerge:
 - how clearly are patients told about drug use and the need for compliance?
 - Would follow-up improve compliance?
 - Are patients taking the drugs but not complying with other aspects of medical advice (diet, exercise)?



Step 2: Select the Cases and Determine Data-Gathering and Analysis Techniques

- Case can be called as **Unit of Analysis**.
- The researcher must select single or multiple cases that reflect the research questions in Step 1.
- Multiple case studies, a number of cases are carefully selected. This offers the advantage of allowing comparisons to be made across several cases and/or replication. Choosing a "typical" case may enable the findings to be generalised to theory (i.e. analytical generalisation)
- This step also involves selecting the instruments and other data-gathering strategies that will be used.



Step 2: Select the Cases and Determine Data-Gathering and Analysis Techniques (continued)

- The selected case study site(s) should allow the research team access to the group of individuals, the organisation, the processes or whatever else constitutes the chosen unit of analysis for the study.
- It is also important to consider in advance the likely burden and risks associated with participation for those who (or the site(s) which) comprise the case study.



Step 3: Prepare to collect the data

- Preparation for the vast amounts of data prior to collection will save the researcher much time and frustration later.
- Due to the nature of case study research, the researcher will generate large amounts of data from multiple sources. Time taken to plan prior to the research will allow one to organize multiple databases and set categories for sorting and managing the data.
- The importance of piloting.
 - to reveal any need for fundamental changes in a research inquiry, its design, or its data collection.



Step 4: Collect data in the field

- Data collection is emergent.
- The importance of field notes.
- Time to end data collection (time and budgetary limitations).

Step 4: Collect data in the field (continued)

- Criteria for determining when it is appropriate to end data collection:
 - a. Exhaustion of sources:** Data sources (e.g., key informants, document analysis) can be recycled and tapped many times, but at some point, it should become clear that little more information or relevance will be gained from further engagement with them.
 - b. Saturation of categories:** Eventually, the categories used to code data appear to be definitively established. When continuing data collection produces only tiny increments of new information about categories in comparison to the effort expended to get them, the researcher can feel confident about ending data collection.
 - c. Overextension:** Even if new information is still coming in, the researcher might develop a sense that the new information is far removed from the central core of viable categories that have emerged and does not contribute usefully to the emergence of additional viable categories



Step 5: Evaluate and Analyse the data

- Triangulation.



Step 6: Prepare the report

- When reporting findings, it is important to provide the reader with enough contextual information to understand the processes that were followed and how the conclusions were reached.
- Care must be taken to ensure the anonymity of case sites and individual participants.



Limitations of case study

- The large quantity of data, combined with the limited timeframe available for some researches may impact on the depth of analysis of the data within the available time and resources.
- Deciding the "boundaries" of a case-how it might be constrained in terms of time, events, and processes-may be challenging.
- Large quantity of data may veer away from the research focus.
- Providing little basis for generalisation.
 - Use large number of cases



Case study example

Paper Title: nurses' paediatric pain management practices

- One of the authors of this paper has used a **case study approach** to explore nurses' paediatric pain management practices. This involved collecting several datasets:
 1. Observational data to gain a picture about actual pain management practices.
 2. Questionnaire data about nurses' knowledge about paediatric pain management practices and how well they felt they managed pain in children.
 3. Questionnaire data about how critical nurses perceived pain management tasks to be.



Case study example

Paper Title: nurses' paediatric pain management practices

- These datasets were analysed separately and then compared.
 1. demonstrated that nurses' level of theoretical did not impact on the quality of their pain management practices.
 2. Nor did individual nurse's perceptions of how critical a task was effect the likelihood of them carrying out this task in practice.
 3. There was also a difference in self-reported and observed practices actual (observed) practices did not confirm to best practice guidelines, whereas self-reported practices tended to.



Recommended Reading

- Case Study Research and Applications: Design and Methods
By Robert K. Yin

Ethnography (Definition)

- Ethnography is the study of social interactions, behaviours, and perceptions that occur within groups, teams, organisations, and communities.
- The central aim of ethnography is to provide rich, holistic insights into people's views and actions, as well as the nature of the location they inhabit, through the collection of **detailed observations and interviews.**



Ethnography (other definitions)

- Hammersley (2006) states that ethnography is a study at first hand about what people do and say in a **particular context**. Most researchers collect data through participant's observation and/or open-ended interviews, also from various documents to understand and explain the participant's perspectives.
- A method to **explore** the nature of a certain social phenomenon and it tends to use unstructured data (Flick, 2002).
- Honer (1993 as cited in Flick et.al., 2004) stated that ethnographies usually focus on a specific culture, characteristics and all information **embedded** in it.



Ethnography (other definitions)

- Ethnography is a qualitative methodology that uses ‘qualitative methods’ such as observation (participant and non-participant), interviews and textual analysis. It is the ‘emphasis on observation alongside’ other qualitative methods as well as the ‘analytic focus on culture’ that are the cornerstones of ethnography (Webster, 2019)



Ethnography

- Ethnography is a well-established anthropological method of writing a holistic description and analysis of a **culture**.
- Usually, ethnographies are created through **participant-observation** and are a key part of anthropological research.
- Helps overcome the limitations of **relying solely on interview data**. Through the collection of observations, interviews and documentary data, which are triangulated (i.e. compared and contrasted with one another).
- Through its use of **in situ observations** ethnographers can 'immerse' themselves in a social setting, thereby generating a rich understanding of social action.
- Participant observation also provides ethnographers an opportunity to gather empirical insights into social practices which are normally 'hidden' from the public gaze



Ethnography- Data collection

- Ethnographer not only observes a social group, setting or subject matter, but engages in the participation actively with a general commitment to observing everyday social life.
- The ethnographic researchers obtain information about certain **socio-cultural phenomena** through the members of the society or documents about those phenomena.
- Observation and interview are two important data collection methods, which are known as **ethnographic fieldwork**.
- Another data collection technique is using earlier written records, which is known as **ethno-historic research**.



Ethnography- Data collection

- **Long-term involvement and observation** are considered necessary to understand the complexity of people's beliefs, attitudes and behaviours.
 - Prolonged exposure in the field through **immersion** allows the ethnographer to build relationships and gain an understanding of the broader social context in which the research is embedded.
- **Portable audio and video recording** devices may rapidly provide large amounts of data and support researcher in understanding the phenomena of the study.



The concept of immersion in Ethnography

- **Immersion**, which means that the researchers are making observations over time. Therefore, there is not just one observation that will conclusively define evolving understanding of the phenomena the researcher is studying.

The concept of Reflexivity in Ethnographic research

- Reflexivity refers to the ways in which the products of research are **affected by the personnel** and process of doing research.
- “Reflexivity” is generally understood as awareness of the influence the researcher has on the people or topic being studied, while simultaneously recognizing how the research experience is affecting the researcher (Gilgun, 2008).
- Reflexivity, which can be understood as a process of **self-examination** (exploring **one's assumptions, emotional reactions, cultural positioning**) through **specific actions** (keeping a journal, debriefing with others, and so on) within a field of inquiry.
- Reflexive researchers are, in essence, gazing in **two directions** at the same time.
- The key to reflexivity is “to make the relationship between and the influence of the researcher and the participants explicit”.



The concept of Reflexivity in Ethnographic research

- Reflexivity enhances the quality (trustworthiness) of research through its ability to extend understanding of how researchers positions and interests affect all stages of the research process.
- Reflexivity, in the form of an account of researcher continuous self-critique and self-appraisal, reveals signposts for readers that tell them “what is going on” (what is happening throughout the research process).



The concept of Reflexivity in Ethnographic research

- Primeau, L. A. (2003). Reflections on self in qualitative research: Stories of family. *American Journal of Occupational Therapy*, 57(1), 9-16.

Ethnography (Continued)

- Ethnographic research is **exploratory** in nature.
 - This approach means that the ethnographer **goes into the field** to explore a cultural group and/or explore certain social interactions.
- Ethnographer can make modification to the research questions, design and technique from the beginning until the completion of the study.
 - Zaharlick (1992) describes this feature as **an interactive-reactive approach**.
- Due to the complexity of ethnography, unlike many other forms of qualitative research, ethnographic research is **more difficult** to undertake (limitation).
- The unpredictability of everyday life often means that data collection activities can be disrupted or access withdrawn depending on ever-changing local circumstances and politics (limitation).



Use of Ethnography in Healthcare

- The research method of ethnography is becoming increasingly popular in the field of health-care research to study behaviour and social interactions.
- Hospitals are often cultures within themselves. And, while some can be very similar, the community of the hospital is often unique. Because hospitals reflect dominant culture and belief systems, the care in each hospital can be different based on the cultural influences.
- From the outside, hospitals look and operate similarly. The patient care and decision making processes can vary widely.
- Through ethnography, behaviours are understood and used to treat the patient through means that fit the needs of the patient. The benefits brought by the ethnography are understanding of the social and cultural backgrounds of the patients and how health behaviours differ across groups.



Steps of Ethnographic research

1. Planning
2. Sampling
3. Data collection
4. Data analysis
5. Write up

Step 1: Planning

- Access and ethics

a. Attaining approval from the appropriate decision makers for access to a research setting is an essential first step in planning an ethnography.

b. Attaining access may be challenging. For example, some people are often reluctant at the thought of being 'scrutinised' by researchers.

Step 1: Planning (continued)

- Establish rapport.
- Gatekeepers.
- Ethical approvals
- Ethical issues:
 1. Avoidance of harm.
 2. Informed consent.
 3. Privacy and confidentiality.

Step 2: Sampling

- Sampling of the research setting is an important component of Ethnography.
- The type of sampling associated with ethnography is purposive sampling, whereby the researcher chooses a specific group and setting to be studied
- Often, a single study site is selected, but multiple individuals, actions and activities embedded within this setting are selected to develop an insightful account of daily life.



Step 3: Data collection

Participant observation

- a field strategy that simultaneously combines document analysis, interviewing of respondents and informants, direct participation and observation.
- Ethnographic fieldwork typically involves the development of close connections between the fieldworker and subjects and situations being studied

Step 3: Data collection (continued)

In-depth interviews

- In-depth interviews are also referred to as focused, unstructured or ethnographic interviews.
- This method of interviewing does not use fixed questions, but aims to engage the interviewee in conversation to elicit their understandings and interpretations.
- These interviews are characterised by active involvement in engaging the participant to converse about a particular topic or discussion relevant to the research questions or topic being explored.
- Interviews are complimentary to participant observation.

Step 3: Data collection (continued)

- Triangulation: Triangulation is an analytical technique that incorporates and compares multiple methods with the intent of providing a more in-depth and holistic understanding of a phenomenon.
- Types of Triangulation:
 1. Data triangulation
 2. Methods triangulation.
 3. Investigator triangulation.
 4. Theory triangulation.



Step 4: Data Analysis

- John and Parsons (2006) suggest that the data collected in the field notes should be: ‘analysed and compared with the transcripts from interviews to identify similarities and differences’.
- field notes and interviews should be transcribed and together are analysed for themes and meanings allowing the observations to be understood. This process is called **Thematic analysis**.
- Donovan (2006) believes that ‘**descriptive analysis**’ is the more traditional approach to use to analyse ethnographic studies.



Step 5: write up

- To help ensure trustworthiness of the research findings, the researchers must be able to illustrate their steps in data collection and in the data analysis process.

- ‘Emic and ‘Etic’



Limitations of Ethnography

1. Sample size is a limitation of the ethnography method. The time required being involved in participant observation and conducting long interviews greatly limits the sample size.
2. 'Hawthorne Effect': if people know they are being observed they may change their behaviour.
3. It is difficult to generalize with the ethnography method. When researching a certain culture, the results cannot necessarily be generalized to other populations.
4. The acceptance of the culture.



Case study Versus Ethnography

Case Study	Ethnography
does not only depend on participant-observer data but mainly uses interviews.	It may require certain periods of time in the 'field' and emphasize details of observational evidence.
does not have to present direct and detailed observations, but it can be based on any quantitative or qualitative data.	The ethnographer may use an interview as an additional technique to capture whole participant's perspective.



Example of Ethnographic studies

- Van Keer, R. L., Deschepper, R., Huyghens, L., & Bilsen, J. (2019). Challenges in delivering bad news in a multi-ethnic intensive care unit: An ethnographic study. *Patient Education and Counseling*, 102(12), 2199-2207.

Thank you !

