SMR | LEC 7 | DONE BY: OLA ALAHDAB

Sampling in Qualitative Research:

- A sampling plan is the design for **how to** specifically **choose** sources for your data.
- A sampling plan is a **formal plan** specifying a sampling method, a sample size, & procedure for recruiting participants.

o Recruitment: the process whereby the researcher **identifies & invites** (recruits) participants to join the study.

- A qualitative sampling plan describes **how many** observations, interviews, focus group discussions or cases are needed to ensure that the findings will contribute rich data.
- In **quantitative** studies, the sampling plan, including sample size, is determined in detail in beforehand but **qualitative** research projects start with a broadly defined sampling plan.
- The sampling plan in qualitative research is appropriate when the selected participants and settings are sufficient to provide the information needed for a full understanding of the phenomenon under study.
- Good qualitative researchers, at the very least, engage in purposeful sampling, which means that they purposefully choose data that fit the parameters of the project's research questions and goals.
- While **quantitative** studies often aim to maximise statistical power through the use of as large a sample size as feasible, **qualitative** studies usually work with a small number of cases that are feasible to study in depth.
- The setting, where sampling is carried out, is described in detail to provide thick description of the context, thereby, enabling the reader to make a transferability judgement.
- **Sample sizes** for qualitative research vary by technique but **are generally small**.
- **Qualitative research involves non-probability sampling**, where little attempt is made to generate a representative sample.
- **Participants are always sampled deliberately, not at random** in qualitative research.

- The sampling process in qualitative research is iterative and is expected to continue to develop and be refined during the research process.

Iterative sampling approach whereby the research team moves **back & forth** (iterating) between sampling and analysing data such that preliminary analytical findings shape subsequent sampling choices.

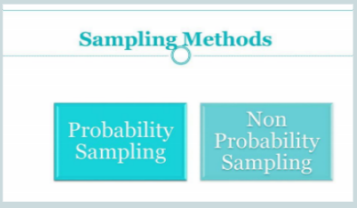
- Analysis and **interpretation of data collected after initial sampling feeds back to influence sampling methods and decisions regarding sample size**.
- As the research progresses, and the sampling of additional data yields no further themes/ ideas/concepts on analysis, the point of **data 'saturation'** is reached & sampling can cease.
- You **review** the analysis, findings, and the quality of the participant quotes you have collected, and **then decide** whether sampling might be ended because of data saturation. In many cases, you will choose to carry out two or three more interviews or an additional focus group discussion to confirm that data saturation has been reached

Some practicalities:

- **You do not have to interview everyone (in a community, hospital) to get a "good" sample**.
- A critical **first step is to select settings and situations where you have access to potential participants**.

 Subsequently, the best strategy to apply is to recruit participants who can provide the richest information. Such participants have to be knowledgeable on the phenomenon and can articulate and reflect, & are motivated to communicate at length and in depth with you.
 Finally, you should review the sampling plan regularly and adapt when necessary.

Types of sampling:



• Probability sampling means that every member of the population has a chance of being selected. It is mainly used in **quantitative** research.
• If you want to produce results that are representative of the whole population, probability sampling techniques are the most valid choice.
• In a non-probability sample, individuals are selected based on non-random criteria, and not every individual has a chance of being included.
• Non-probability sampling techniques are often **used in qualitative** research. In these types of research, the aim is not to test a hypothesis about a broad population, but **to develop an *initial* understanding of a *small* sample of population**.

Approaches to sample selection in Qualitative Research:

 They fall under 2 broad categories:
1) **non-conceptually-driven approaches** (convenience & opportunistic sampling).
2) **conceptually-driven approaches** (purposive & theoretical sampling).

Sampling strategies in qualitative research:

Box 1. Sampling strategies in qualitative research. Based on Polit & Beck [3].

Sampling	Definition
Purposive sampling	Selection of participants based on the researchers' judgement about what potential participants will be most informative.
Criterion sampling	Selection of participants who meet pre-determined criteria of importance.
Theoretical sampling	Selection of participants based on the emerging findings to ensure adequate representation of theoretical concepts.
Convenience sampling	Selection of participants who are easily available.
Snowball sampling	Selection of participants through referrals by previously selected participants or persons who have access to potential participants.
Maximum variation sampling	Selection of participants based on a wide range of variation in backgrounds.
Extreme case sampling	Purposeful selection of the most unusual cases.
Typical case sampling	Selection of the most typical or average participants.
Confirming and disconfirming sampling	Confirming and disconfirming cases sampling supports checking or challenging emerging trends or patterns in the data.

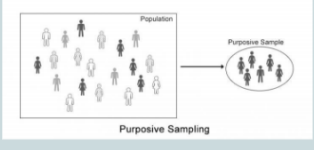
Convenience sampling:

 In this approach, the potential participants/research settings/ that are **most easily accessible** to the researcher are sampled.
 "Because they are there": people closely surrounding you.
 Its advantages are that it is less expensive and time- and effort-intensive.
 Convenience samples are **most appropriate when the priorities are *speed & low cost***.
 Example, when you simply ask any patient in your clinic who is willing to participate.
- Examples:
 a teacher who wanted to examine the perceptions of teachers about a policy change and decided to utilize a school within the district he or she worked in to recruit participants.

 a professional who is a member of a professional organization and wanted to recruit participants through contact information available to members of that organization.
 Both examples would be convenient but would also require obtaining permissions to recruit participants (from the district & professional organization respectively).

Opportunistic (emergent) sampling:
 This sampling method involves the researcher taking advantage of circumstances that occur as the study progresses, **taking up emerging opportunities for data collection** along the way.
 This flexible approach lends itself to **exploratory** field research, where **little is known** about a phenomenon or research setting.
 New opportunities to recruit participants or to gain access to a new site may develop after the fieldwork has begun.
 As the observer gains more knowledge of a setting, he or she can make sampling decisions that take advantage of events, as they unfold.
 Example: Interviewing homeless people at a shelter, one man tells you where most of the homeless people sleep, so you add this site to where you interview.

Purposive/judgement sampling:
- A frequently-applied **conceptually-driven** approach.
- It involves the **researcher** deliberately and purposefully selecting the sample they **believe** can be the most fruitful in answering the research question.
- This selection process can be guided by consideration of the variables or qualities of potential participants that affect the contribution they could provide to the study.
- These variables may be simple demographics such as age, gender and socioeconomic status but can also include other aspects such as specific attitudes or beliefs.
- Example:
 a student who seeks to look at current nurses' perceptions of leadership styles within a specific hospital setting.
 This one sentence description alone can already generate 2 selection criteria: (a) must be an active nurse and (b) must work at a specific hospital setting.
 Additional criteria such as number of years in the field or level of nursing education will ensure participants have a similar foundation.



Strategies of purposeful sampling:
❑ There are several different strategies for purposefully selecting information-rich cases.
 Maximum variation (**Heterogenous**) sampling.
 Homogenous sampling.
 Deviant sampling.
 Typical case sampling.
 Critical case sampling.
 Confirming and disconfirming sampling.
 Stratified purposeful sampling.
 Snowball sampling.

Maximum variation sampling (Heterogenous sampling):

- Entails the recruitment of study participants who **vary widely** on the dimensions of interest with the aim of: identifying **central themes/elements** that hold true across the diverse sample.
- Another definition; researchers access a **wide range** of data or participants who will represent **wide variations** of the phenomena under study.
- This allows for multiple perspectives of individuals to be presented that exemplify the complexity of the world.
- Any common patterns that emerge from great variation are of particular interest and value in capturing the core experiences and central, shared aspects or impacts of a program.

How does one maximize variation in a small sample?

- One begins by identifying diverse characteristics or criteria for constructing the sample.
- Suppose a state-wide program has project sites spread around the state, some in rural areas, some in urban areas, and some in suburban areas. The evaluation lacks sufficient resources to randomly select enough project sites to generalize across the state. The evaluator can **at least** be sure that the **geographical variation** among sites is represented in the study.
- When selecting a small sample of great diversity, the data collection & analysis will yield two kinds of findings:

(1) **high-quality**, **detailed** descriptions of each case, which are useful for documenting **uniqueness**.
(2) important **shared patterns** that cut across cases and derive their significance from having **emerged out of heterogeneity**.

Why to use this strategy?

- Often, researchers want to understand how a phenomenon is seen and understood among **different** people, in **different** settings, & at **different** times.
- When using it, the researcher selects a **small number** of units or cases that **maximize the diversity** relevant to the research question.
- Example, this strategy was used by **Foss and Edson** (1989) in their study of women's choices about changing their names after marriage. The authors purposefully recruited three groups of women. Group one included women who adopted their husbands' names; in group two they kept their birth names; in group three they chose new names. Sample variation was necessary for illustrating the complex nature of post-marital naming decisions.

Homogenous sampling:

- In direct contrast to maximum variation sampling is the strategy of picking a small homogeneous sample.
- aims to select a group of cases with **similar** backgrounds and experiences, **simplifying** analysis and **facilitating** group interviewing.
- This sampling approach often is **used to select focus groups**.

Why to use this method?

- it is used when the goal of the research is to understand & describe **a particular group in depth**.

Deviant case (extreme instance) sampling:
 Involves the selection of **extreme** or **outlying cases** of the studied phenomenon, such as **crises**, **exceptions or remarkable failures or successes**, in an attempt to glean as much information relevant to the research question as possible from each case.
 Learning from highly **unusual** manifestations of the phenomenon of interest.
 Example, in a study of performance of graduate students, a researcher can select the best and the worse students in class and compare the causes of their performances.
 Example, scholars interested in happiness may choose to interview people who are especially resilient, energetic, and long-living, and those interested in crisis sensemaking may purposefully examine tragic disasters.
 Excellent example of extreme group sampling is Angela Browne's (1987) study, When Battered Women Kill. She conducted in-depth studies of the most extreme cases of domestic violence to elucidate the phenomenon of battering and abuse. The extreme nature of the cases presented are what render them so powerful.
 Finding (and even knowing what equates with) **"extreme" requires first gathering & then sorting through a lot of "typical" data** (The process of identifying extreme or deviant cases occurs **after** some portion of data collection and analysis has been completed).

Typical case (typical instance) sampling:
 focuses on **typical/average** cases with the aim of building up a profile of a typical case.
 The case is specifically selected because it is **not** in any way atypical, extreme or deviant.
 General agreement (consensus) on what constitutes a 'typical' case **is required** for this approach.
 The researcher should consult several experts in the field of study in order to obtain a consensus as to what example(s) is typical of the phenomenon and should, therefore, be studied.
 Another option is to **use another sampling technique** -like maximum variation sampling- to identify typical cases prior to choosing cases for your study.
 Example, let's say you were studying violence in schools. The first step would be to list all of the criteria that define violence for a "typical" school.
 Then you would choose schools that meet that criteria.
 You would want to select schools that are "**average**" (meeting your selected criteria) instead of schools with very high or very low violence rates.
Why use this method?
 Identifying typical cases can help a researcher identify and understand the key aspects of a phenomenon as they are manifest under **ordinary** circumstances.
 Providing a case summary of a typical case can be helpful to those **not familiar** with a culture or social setting (Helps to **give an overview** to people with no background).

Critical case (critical incident sampling) sampling
 selects cases that will produce **critical information with maximum generalisability** of information to other cases.
 The process of selecting a **small** number of **important** cases - cases that are likely to "yield the **most information** and have the **greatest impact** on the development of knowledge".
 A good critical case also permits logical deductionsحسم in the form: "If this is (not) valid

for this case, then it is not valid for any (or only a few) cases".
 Given that the researcher correctly identifies what makes a 'critical case', knowledge gained may be applied to other cases.
 Examples:
❖ if it happened to so and so then it can happen to anybody, or if so and so passed that exam, then anybody can pass.
❖ You want to know how well people understand a new tax law. Ask very educated people -- if they do not understand it, then probably no one will. Or ask a very uneducated population, if they understand it, most people will.
❖ imagine you are a researcher studying the demise of traditional dinnertime rituals طقوس. You could purposefully choose a critical sample of families who might be most likely to practice traditional dinnertime rituals (e.g. religious, a stay-at-home mother). You might find that even these families do not engage in traditional rituals like saying a family prayer before dinner. In choosing this critical case, you might be able to play with the claim that, "if dinnertime rituals are fading even in this critical sample, then such rituals are likely disintegrating among most families."
❖ if conservative group adopts new technology, every other group will.
❖ Suppose national policymakers want to get local communities involved in making decisions about how their local program will be run, but they aren't sure that the communities will understand the complex regulations governing their involvement. The first critical case is to evaluate the regulations in a community of well-educated citizens. If they can't understand the regulations, then less-educated people are sure to find the regulations incomprehensible. Or, conversely, one might consider the critical case to be a community consisting of people with quite low levels of education: 'If they can understand the regulations, anyone can.'
 In short, choosing a critical sample can help with transferring claims to larger populations in the long run.

Why to use this method?

 This is a good method to use when funds are limited. Although sampling for one or more critical cases may not yield findings that are broadly generalizable, they may allow researchers to develop logical generalizations from the rich evidence produced when studying a few cases in depth.
 To identify critical cases, the research team needs to able to **identify the dimensions** that make a case critical.

Confirming & disconfirming sampling:

 Usually **employed in later phases of data collection**. Confirmatory cases are additional examples that fit **already emergent** patterns to add richness, depth and credibility.
- Disconfirming cases act as a means for placing boundaries around confirmed findings.
 involves the selection of a mixture of cases that tie in with expectations or findings up to that point in the study and cases which deviate from them.
 The **confirming** cases serve to **add depth, detail & enhance credibility** while the **disconfirming** cases **challenge the prevalent narrative** & may **bring** to light **alternative interpretations**.
 This approach is generally utilised at **later stages** of a study when preliminary fieldwork

has already established what qualifies as a 'confirming case'.

Stratified purposeful sampling:
- Selects participants from specific **sub-groups** of the population of interest, enabling easier comparison of the variation across sub-groups.
- Patton (2001) describes these at **samples within samples** and suggests that purposeful samples can be *stratified* or *nested* by selecting particular units or cases that vary according to a key dimension.
- The purpose of a stratified purposeful sample is **to capture major variations** rather than to identify a common core, although the latter may also emerge in the analysis.
- Each of the strata would constitute a fairly homogeneous sample.
- This strategy differs from stratified random sampling used in quantitative research in that the sample sizes are **too small for generalization** or statistical representativeness.
- Example: If you want to study university students, pick a certain number of students from each of the 4 years (sample of freshmen, sophomores, juniors, and seniors).
- one may purposefully sample primary care practices and stratify this purposeful sample by practice size (small, medium and large) and practice setting (urban, suburban and rural).

Snowball/chain sampling (FRIEND OF FRIEND):
- involves identification of participants by a technique known as 'snowballing' whereby **initially identified participants are asked to suggest other possible candidates**.
- Researchers begin by identifying several participants who fit the study's criteria and then ask these people to suggest a colleague, a friend, or a family member.
- Start with a few respondents, then ask them who else might have _____ or know about ____?
- Example: Find a few diabetic patients, then ask them who else they know has diabetes.
- This is especially **useful when the studied population is hard to access**, and/or may not publicly signal that they belong to the group of interest (e.g. drug-users).
- One downside to snowball samples is that they can **quickly skew to one type of group or demographic** (as participants tend to suggest others who are similar to themselves).
- A potential solution is to recruit a handful of participants who represent a maximum variation, then to generate several smaller snowballs from that diverse initial sample.

Theoretical sampling:
- An approach where sampling decisions are **guided by the theory** that starts to emerge from the collected data.
- The process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop the theory as it emerges".
- The goal is to collect data that either **further develops or challenges existent hypotheses**. Initial cases selected have similar characteristics & are studied in depth. The researcher then samples outlying cases **to see whether the developing hypothesis 'holds up' to these**.
- Once no new insights are derived from further data collection, sampling is ceased. **This approach necessitates that data analysis and coding commenceبدأ while data collection is still ongoing**.

 In theoretical sampling, **the actual number of cases studied is relatively unimportant**.
 What is important is the potential of each case to aid the researcher in developing theoretical insights into the area of social life being studied.
 After completing interviews with several informants, you consciously vary the type of people interviewed until you have uncovered a broad range of perspectives held by the people in whom you are interested.
 You would have an idea that you had reached this point when interviews with additional people yield no genuinely new insights.

SELECTING INFORMANTS:
 Qualitative interviewing calls for a flexible research design.
 The researcher starts out with a general idea of which people to interview and how to find them, but is willing to change course after the initial interviews.
 Those new to qualitative research usually want to know exactly "how many people they need to interview to complete a study", this is a difficult question to answer prior to conducting some research.
 As Kvale (1996) pointed out: “Interview **as many subjects as necessary** to find out what you need to know.”
 The size of the sample in an interviewing study is something that should be determined toward the **end** of the research, not at the beginning.
 Although qualitative researchers generally cannot determine the sample size prior to conducting a study, people preparing proposals for dissertations or grants are usually expected to specify the number of informants or settings they intend to study.
 IRBs might also require this. You should be prepared to indicate your sample size in proposals, adding that this might change as you start collecting and analysing data.
 Informants can be found in a number of ways.
 on pre-fieldwork, one of the easiest ways to build a pool of informants is **snowballing**.
 A potential drawback of the snowball technique is that it can limit the diversity of your informants.
 So you need to be prepared to use a range of different approaches to identifying people.
 You can locate potential informants through the same sources the participant observer uses to gain access to private settings: checking with friends, relatives, & personal contacts; involving yourself with the community of people you want to study; approaching organizations & agencies; advertising in media sources; & announcements through Internet.

CONCLUSION- FLEXIBILITY IN QUALITATIVE SAMPLING:
 A **flexible** research & sampling design is an important feature of qualitative research.
 When little is known about a phenomenon or setting, a priori sampling decisions can be difficult. In such circumstances, creating a research design that is **flexible enough** to foster reflection and preliminary analysis may be a good idea.

CONCLUSION: