**COM 958-52: Research Design and Methodology III**

**(Spring 2025, Sub-term A)**

**Assignment No. 1**

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 **Assignment #1 – Core Essential Elements**

Answer the following questions in short answer format and be prepared to discuss them with

your classmates in the virtual residency or the discussion forum.

1. Why are research ethics important for protecting human participants (subjects) in social

science research? What are some potential risks associated with collecting data from

human participants?

2. What is the difference between a target population and a sample? How does sample

size relate to parametric (generalizable to the target population) and nonparametric

(applicable only to the sample) statistical procedures?

3. Describe the following approaches to recruiting participants and designing sampling

procedures: convenience, purposive, and snowball. Why are inclusion and exclusion

criteria important when recruiting participants?

**1. Why are research ethics important for protecting human participants (subjects) in social**

**science research?** **What are some potential risks associated with collecting data from**

**human participants?**

Research ethical standards are crucial in the ethical standard regulations binding on the researchers (academia), stakeholders (academia, government, and corporate organizations), and the public (consumers) demanding realistic, factual data and information that upholds transparency and the integrity of the research-communication, its sources, and the resources generated. The research must enshrine the dignity and human rights of the participants, truth and respect, and trust and integrity as hallmark principles. It must exemplify the guardrails of discipline to warrant informed consent to unfold research purpose and understanding, its methodologies, and at the same time, minimize the potential harm and risk factors.

**Some of the potential risk factors** associated with collecting data from human participantsincludethe breach of privacy and confidentiality, social and physical harm, especially the harm from loss of autonomy or research rights to certain data and information. Masso et al. (2025) investigate the evolution of research ethics within the social sciences, emphasizing the shift from procedural norms to social scientific discipline-specific and method-based principles. This transformation acknowledges social science research's unique challenges and opportunities, such as digital data, algorithms, and artificial intelligence. Our empirical analysis highlights the precariousness researchers face regarding these technological shifts. Traditional methods remain prevalent despite the recognition of new digital methodologies that necessitate new ethical principles (Abstract).

**2. What is the difference between a target population and a sample? How does sample**

**size relates to parametric (generalizable to the target population) and nonparametric**

**(applicable only to the sample) statistical procedures?**

A target population denotes the whole group of persons that the researcher is interested in studying and can assume, or draw assumptions, inferences, and perhaps some conclusions in the process of the study. Meanwhile, a sample is a subgroup, or subset, or subclass of the group from which the researcher makes the data selection and analysis about the greater or bigger targeted populace.

 **A population**is an entire group that you want to draw conclusions about. **A sample** is the specific group that you will collect data from. The size of the sample is always less than the total size of the population (Bhandari, 2020, 2024). Scribbr Publications.

**Parametric and non-parametric tests for comparing two or more groups Table 2:1**



* **Table 2.1 is culled from UK-FPH: UK-Faculty of Public Health, 2025.**

Parametric tests are those that make assumptions about the parameters of the population distribution from which the sample is drawn. This is often the assumption that the population data are normally distributed. Non-parametric tests are “distribution-free” and, as such, can be used for non-normal variables. Table 2.1 shows the non-parametric equivalent of several parametric tests (FPH, 2025)**.** UK-FPH Publications.

 **3. Describe the following approaches to recruiting participants and designing sampling**

**procedures: convenience, purposive, and snowball. Why are inclusion and exclusion**

**criteria important when recruiting participants?**

The way researchers select their participants impacts the validity and reliability of their findings, making it one of the most crucial steps in the research process. **The convenience sampling** method involves selecting easily accessible participants who meet the criteria. And they are willing to take part in the study, to collect data quickly and with minimal effort. This is cost effective and there is speed. It could be fraught with bias when there are fewer participants. It's mostly used in exploratory research, pilot studies, and projects with limited budgets. **The purposive sampling** aligns with the objectives of the research project. The intention is not to gather a wide, diverse group of participants but a select few that are knowledgeable and able to provide depth and richness to the data. They are efficient and capable of offering focused and contextually relevant data and information, meeting the niche or specific subgroup participation and carefully defining the criteria for inclusion. It can be biased due to its selection and participants’ subjectivity. It is mostly used in qualitative, mental health, and ethnographical research studies for great details. **Snowball Sampling** relies on social networking and referrals to build samples. It usually starts with a few participants and gradually grows organically, involving more participants, and it is best with hard-to-reach populations. It is most effective when using traditional methods. It is generally not recommended due to its propensity for bias in participants’ selection. Familiarity with participants may create some bias unless there is trust among the participating participants and peers. It can limit diversity and inclusion when the participants are not revealing enough data and information (Pretorius, 2025).

**Inclusion and exclusion criteria are important when recruiting participants:** At ICORD, clinical and behavioral research studies are conducted that involve human volunteers (participants) to expand knowledge and help gather new information on a specific question or field of study. Inclusion criteria are the factors that allow a person to participate in a study, whereas exclusion criteria are the factors that disqualify a person from participating. There are many reasons why a person can or can’t participate in a study. Eligibility criteria are created by researchers to ensure findings are applicable to the questions being asked as well as to minimize harm to participants. The purpose of the study informs the inclusion and exclusion criteria; therefore, the criteria can differ among research studies with different purposes. Choosing criteria is important because it ensures participants provide the necessary information to address research questions. A different but equally important reason for criteria selection is based on the safety of participants. If researchers have reason to believe an intervention or study may cause harm to a group of individuals, people with these characteristics will be excluded from the study. When researchers select criteria, they do their best to ensure the rigor and validity of study findings while also maintaining participant safety. Therefore, one study may include participants who were excluded from another study. This does not indicate that the criteria are unethical but instead that the purposes of the studies are different (ICORD, 2025).

**Works Cited**

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