Social Research Reference Guide

Reducing the Impact of Insecurity on Afghanistan's Legal System (RIIALS)

International Development and Law Organization (IDLO)

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ACRONYMS

ACKU	Afghanistan Center at Kabul University
Atlas.ti.	Software for analyzing qualitative data
CATI	Computer-Assisted Telephonic Interview
CDC	Community Development Council
CSO	Civil Society Organization
DFA	The De-facto Authorities
FGD	Focus Group Discussion
GBV	Gender-Based Violence
GD	Group Discussion
IDI	In-Depth Interviews
IDLO	International Development and Law Organization
IDP	Internally Displaced Person
KII	Key Informant Interview
KoBo	A free, open-source tool for mobile data collection
NGO	Non-Governmental Organization
NVivo	Software for analyzing qualitative data
ODK	Open Data Kit
QC	Quality Control
RFP	Request for proposal
RIIALS	Reducing the Impact of Insecurity on Afghanistan's Legal System
R-Studio	Statistical Software
SPSS	Statistical Package for Social Sciences
STATA	Statistical Software
STDV	Standard Deviation
SWOT	Strengths, Weakness, Opportunities, and Threats

ABOUT THIS SOCIAL RESEARCH REFERENCE GUIDE

This social research reference guide is invaluable for conducting research in Afghanistan and other challenging environments. It is organized into sixteen chapters, each offering practical guidance on the key elements of social research. Whether you are an experienced researcher or new to the field, this guide provides insights to help you effectively navigate the complexities of conducting research.

The reference guide starts by exploring critical concepts that are essential to understand before embarking on any research project. These foundational considerations serve as a solid base that can be referred to at different stages of the research journey. Recognizing the potential risks involved in conducting research in Afghanistan, the guide also provides alternative approaches for collecting data safely, taking into account the complex social and cultural considerations.

The reference guide delves into primary data collection methods, including qualitative and quantitative approaches, by providing step-by-step guidance and practical examples, equipping researchers with the necessary tools to gather valuable data in challenging contexts. It then explores different types and techniques of data analysis, empowering researchers to select and apply appropriate analytical approaches effectively.

The reference guide also offers practical guidance on reporting research findings. From communicating results effectively to presenting findings clearly and concisely, it provides tips on creating comprehensive research reports and visual aids and tailoring presentations for different audiences.

The guide is complemented by references and additional reading suggestions that can provide a broader understanding of applying the guidance in the larger context of conducting research in insecure and volatile areas.

CHAPTER 1: INTRODUCTION TO SOCIAL RESEARCH

Contents

This introductory chapter aims to provide readers with a foundation in the fundamentals of social research. The chapter covers the following topics:

- Definition of research and its importance in social science.
- Historical context and reasons why people conduct research.
- How research studies are used in practical social contexts.
- Types of social research.
- Challenges related to conducting social research.

Overall, the chapter provides a comprehensive overview of the basics of social research. By understanding these foundational concepts, readers will be better equipped to engage with the material in subsequent chapters and develop a deeper understanding of social research.

What is Social Research?

In simple terms, social research involves studying and understanding various aspects of society through asking questions, observing, and analyzing data. It can be used in fields like health, education, and law to describe, explain, or evaluate social phenomena. Social research informs decision-making and helps us better understand human behavior and societal dynamics.

Why Conduct Research?

Research is essential for advancing knowledge, solving real-world problems, driving innovation and development, and fostering personal and professional growth. It expands our understanding of the world, generates new insights, and shapes our understanding of various fields. Research can lead to practical applications that improve our lives and societies, inform policy decisions, and drive growth. Engaging in research also helps individuals develop critical thinking skills, problem-solving abilities, and creativity, leading to personal and professional growth. Research is conducted for various reasons:

- **To understand complex issues:** Research can help us better understand complex issues and challenges. For example, civil society organizations in Afghanistan may conduct research to understand better the root causes of conflict, poverty, or social injustice.
- **To identify solutions:** Research can help identify potential solutions to problems. For instance, research can be used to identify best practices for promoting human rights or sustainable development in Afghanistan.
- **To evaluate programs and policies:** Research can be used to evaluate the effectiveness of programs and policies. For example, civil society organizations in Afghanistan may conduct research to assess the impact of specific interventions to improve access to justice, education, or healthcare.
- **To inform decision-making:** Research can provide policymakers, practitioners, and other stakeholders with evidence-based information to make informed decisions. For instance, research can inform the development of policies and strategies to address social and economic challenges in Afghanistan. It can also form the basis for developing projects and direct donor funding.
- **To advance knowledge:** Research can be used to expand knowledge, contribute to understanding a particular topic or field, and generate evidence-based information that can inform decision-making and advance human understanding.

In the box below, let us explore how social research is relevant to the issues we face every day.

Social research and everyday life

In Afghanistan, social research can provide insights into the impact of conflict and displacement on individuals and communities. For example, researchers can investigate how displacement affects access to healthcare, education, and other basic services, as well as how individuals and communities cope with the stress and trauma caused by conflict and displacement and how they rebuild their lives and communities.

Both social research and everyday life experiences are important in understanding and addressing the complex social issues faced by the country. Social research offers a systematic

and structured approach to studying these issues, while everyday life experiences can provide valuable insights and solutions.

For instance, gender-based violence is a pervasive issue that affects millions of women worldwide daily. Social research and everyday knowledge can shed light on this problem. Women develop strategies for dealing with gender-based violence in their everyday lives, such as avoiding certain areas or behaviors they believe put them at risk, seeking support from friends and family, or taking self-defense classes.

Social research can also investigate gender-based violence in a systematic way, using research methods like surveys, interviews, or focus groups to gather data on its prevalence and nature. Researchers may also develop theories about the root causes of this issue, such as societal norms that reinforce gender inequality or the impact of economic or political instability.

The knowledge generated from both everyday experiences and social research can be used to develop strategies to prevent and respond to gender-based violence, such as public education campaigns, policy changes, or the creation of support services for survivors. By combining insights from everyday knowledge and scientific research, a more comprehensive understanding of the issue can be developed, leading to effective solutions.

History of Social Research

The history of social research can be traced back to ancient times when philosophers, thinkers, and scholars have always been curious about understanding human behavior and society. However, the formal development of social research as a distinct field of study can be traced back to the 19th and early 20th centuries.

Since the middle of the twentieth century, social research has become more important as a basis for decisions in practical and political contexts. In most countries, regular surveys in various areas are common practice; governments commission research studies on health, poverty, and on the situation of the elderly and youth, and children.

In many areas, decisions about establishing, prolonging, or continuing services, programs, or institutions are based on evaluations of existing examples or experimental programs. Here, social research provides data and results as a basis for decisions and makes assessments and evaluations (e.g., examining whether one type of school is more successful in reaching its goals than a different type). Therefore, the potential for implementation of research results, and more generally, the impact of research beyond academia, become more important.

For example, an international women's rights organization wants to commission a study to understand the impact of education on Afghan women's empowerment. The study's findings can be used to inform the women's rights organization's advocacy efforts and shape its program development. The organization can also use the findings to advocate for increased investment in education for Afghan girls and women and to develop programs that support women's education and empowerment. The organization can even share the findings with other donor agencies to promote policy change and resource allocation that supports women's education and empowerment in Afghanistan.

Types of Social Research

The field of social research can be broadly categorized into two types: **basic and applied research**.

Basic research, also known as fundamental research, aims to improve our understanding of common problems in social settings and how to address them. The main objective of basic research is to explore the unknown and add to our existing knowledge. For example, a study on why climate change has a more severe impact on Afghanistan compared to other countries would contribute to the existing knowledge on this topic in Afghanistan.

Applied research, also referred to as action or decisional research, is conducted in response to a social issue that requires a practical solution. Its primary objective is to provide answers to real-world questions that are both valuable and practical. In applied research, researchers apply fundamental research findings in action and address social and political realities. For instance, as part of applied research, a study could be conducted to evaluate the quality of education in schools in Afghanistan and identify potential ways to enhance it.

Data collection for basic and applied research can be done using one of, or a combination of, three approaches: **quantitative, qualitative,** and **mixed methods.**

Quantitative research is the process of collecting and analyzing numerical data. It seeks to find patterns, make predictions, test causal relationships, and generalize results to broader populations. It is widely used in the natural and social sciences, such as biology, chemistry, psychology, economics, sociology, and marketing.

For example, you could conduct basic research by analyzing quantitative data on the prevalence of violence against women in Afghanistan and its causes. The study would seek to understand the extent of the problem and identify potential factors that contribute to it, such as cultural beliefs, socio-economic status, and access to education. An applied research study could involve surveying women in Afghanistan to understand their experiences with the justice system and identify areas for improvement.

Qualitative research involves collecting and analyzing non-numerical data, such as text, video, or audio, to understand concepts, opinions, or experiences. It aims to gather in-depth insights into a problem or generate new ideas for research. It is commonly used in the humanities and social sciences, including sociology, education, health sciences, and history.

For example, basic research could involve conducting in-depth interviews with community leaders in Afghanistan to understand their perceptions of justice and how it is practiced in their communities. The study would seek to identify cultural, social, and political factors shaping the justice concept in Afghanistan. An applied research study could involve conducting focus group interviews with CSO leaders to understand their experiences working with the justice system and identify areas where they can collaborate to improve access to justice for vulnerable groups.

Mixed methods research is a combination of quantitative and qualitative methods, where data can be a mixture of variables, words, and images. This approach aims to improve the strengths and minimize the weaknesses of both types of research within a single study. It is used when both quantitative and qualitative data are required to answer a research question or to provide a more comprehensive understanding of the issue at hand.

For example, a basic research study could involve combining statistical data on the number of cases of corruption in Afghanistan with interviews of individuals who have experienced corruption to understand the impact of corruption on justice in Afghanistan. An applied research study could involve conducting a survey among CSOs and justice sector actors to understand their perceptions of the effectiveness of existing anti-corruption measures and identify areas for improvement.

Overall, understanding the differences and strengths of each approach can help researchers determine which method to use based on the research question, the data available, and the purpose of the study. By being aware of the different research approaches, researchers can select the most suitable approach to help them achieve their research goals.

Challenges Related to Conducting Social Research

The actual process of conducting social research is often messier than what you may read in textbooks or in this reference guide. Research processes are full of false starts, mistakes, and unexpected changes to plans. While this guide aims to provide an overview of the research process and offer advice on how it should be done, it is impossible to cover all contingencies because research experiences can vary greatly and are often difficult to anticipate.

Many accounts of research that we read in reports or articles tend to present a sanitized version of how the research was conducted, focusing on specific findings and using standard methodological terminology. The challenges and obstacles faced by researchers during the research process often do not feature in these accounts, creating a somewhat idealized picture of the research journey. However, research can encounter hurdles, and research studies do not always go as planned, which is true for social research and other fields of study.

While providing general principles of research methods, this reference guide cannot cover every possible scenario, and it is possible that the advice provided may not perfectly fit the circumstances of your research. It is crucial to be aware of this possibility and not interpret any deviations from the guide's advice as a reflection of your own skills or understanding. In fact, the unpredictable nature of research is what makes it challenging and interesting.

Drawing from the analogy of construction projects, where unforeseen events can knock a project off course, but the principles of construction and project management are still valuable, the same applies to research projects. Numerous things can go wrong, and flexibility and perseverance are often needed. At the same time, it is crucial to understand methodological principles and the debates and controversies surrounding them. This is what this reference guide aims to provide. These principles serve as a roadmap for the research journey ahead.

Key Points

In summary, the main takeaways from this chapter are:

- Social research is the study and analysis of different aspects of society and can be applied to fields such as health, education, and law.
- The aim of social research can vary from describing something to explaining it or evaluating something like an intervention or institution.
- Research is conducted for various reasons, including understanding complex issues, identifying solutions, evaluating programs and policies, informing decision-making, and advancing knowledge.
- Social research can be broadly categorized into two types: basic and applied research.
    - **Basic:** undertaken to improve our understanding of specific problems that commonly occur in social settings and how to solve them
    - **Applied:** undertaken in response to a social problem requiring a solution. In applied research, the researcher practices the fundamental research findings to deal with social, political, etc. realities.
- There are three approaches to both basic and applied research.
    - **Quantitative research** generally addresses counting and measuring aspects of social life.
    - **Qualitative research** involves descriptive and interpretive approaches to understanding social phenomena, focusing on exploring individuals' or groups' meanings, experiences, and perspectives.
    - **Mixed research** mixes quantitative and qualitative methods. The nature of data is a mixture of variables, words, and images. The purpose is to improve the strengths and reduce or minimize the weaknesses of both types of research in one study.

Further Readings

- Research Methods in Psychology by Paul C. Price and Rajiv S. Jhangiani: https://opentextbc.ca/researchmethods/
- Social Science Research: Principles, Methods, and Practices by Anol Bhattacherjee: https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks
- Qualitative Research Methods: A Data Collector's Field Guide by Michael Bamberger, et al.: https://www.unicef.org/evaluation/files/Qualitative_Research_Methods_-_A_Data_Collectors_Field_Guide.pdf
- Statistics for Social Sciences by Krishna P. Seetharamu: http://nroer.gov.in/55ab34ff81fccb4f1d806025/file/587d39c58a7e1f036c8b4f1b
- The SAGE Handbook of Social Research Methods edited by Pertti Alasuutari, Leonard Bickman, and Julia Brannen: https://us.sagepub.com/en-us/nam/the-sage-handbook-of-social-research-methods/book235126

CHAPTER 2: METHODS OF SOCIAL RESEARCH

Contents

This chapter aims to provide readers with an overview of the main social research methods.

The chapter covers the following topics:

- Overview of social research methods
- Commonly used methods in social research
- Key features, advantages, and disadvantages of using primary research methods, including surveys and interviews.
- Key features, advantages, and disadvantages of using secondary research methods.
- Other types of research methods like case studies and success stories.

Overall, the chapter provides a comprehensive layout of the methods used in social research by providing empirical examples to the readers. After going through this chapter, readers will be able to differentiate different types of research methods and think about suitable methods for their own research undertakings, as we will explore in the next chapters.

Overview of Social Research Methods

Social research methods are the techniques and strategies used by researchers to investigate social phenomena and collect data about human behavior and society. Researchers use these methods to plan, design, and conduct studies that aim to understand and explain social issues, problems, and trends. Social research methods can be divided into two main categories: **primary** and **secondary** research methods.

- Primary research involves collecting data directly from the source. This type of research is usually conducted by the organization or individual that is interested in studying a particular topic or issue.
- Secondary research involves collecting and analyzing data and information that has already been published by others, such as books, articles, reports, databases, and other sources, to answer research questions or explore a particular topic of interest.

First, we will discuss primary research and then touch upon secondary research toward the end of this chapter. The main reason is that primary research methods encompass an incredibly diverse set of approaches and are, in a way, our main theme of study in social research.

Primary Research

Primary research involves collecting data directly from the source. This type of research is usually conducted by the organization or individual that is interested in studying a particular topic or issue.

There are several methods of primary research, including:

1. **Surveys:** Surveys are a common method of primary research in which a set of questions is posed to a group of people who are representative of the population being studied. Surveys can be conducted in person, over the phone, or online. They can be used to collect data on a wide range of topics, from demographic information to opinions on specific issues.
2. **Interviews:** Interviews involve asking individuals specific questions about their experiences, opinions, or attitudes. Interviews can be conducted in person or over the phone, and they can be structured or unstructured. Structured interviews involve asking a set of predetermined questions, while unstructured interviews allow for more free-flowing conversation.
3. **Mixed:** Mixed research is an approach that involves using both qualitative and quantitative data collection and analysis methods in a single study. This approach is popular because it allows a researcher to combine numerical data and contextual understanding by combining both qualitative (such as interviews) and quantitative (such as surveys); researchers can explore diverse issues and look at problems from various aspects, leading to the identification of exciting relationships.

The following section will discuss each type of primary research method in detail. We will start by exploring surveys and then go through features and types of interviews.

1. Surveys

A survey is a type of research where a group of people, also known as a sample, is asked a series of predetermined questions. This method is used to collect data on a particular topic or issue that researchers are interested in studying. Surveys are particularly useful when researchers want to understand the characteristics or opinions of a large group of people, such as a population of a city or a country. To collect this information, researchers must first identify a sample of people who represent the larger population.

For example, you want to understand the opinions of women-led CSOs in Afghanistan about the impact of the current political situation on their work. To do this, you would need to identify a representative sample of women-led CSOs in Afghanistan. Once the sample is identified, you would develop a set of predetermined questions, which are called survey questionnaires. In this questionnaire, you may ask questions about the demographics of the organization, the challenges they face, and their perceptions of the political situation.

The questions in a survey are typically closed-ended, meaning that respondents are given a set of possible answers to choose from. For example, a question may ask:

"Do you agree that the current political situation has negatively impacted the work of your organization?"

The possible responses could be "Strongly agree," "Agree," "Neutral," "Disagree," and "Strongly disagree."

By analyzing the responses of the sample, you can draw conclusions about the characteristics and opinions of the larger population of women-led CSOs in Afghanistan. Surveys are a useful tool for collecting large amounts of data quickly and efficiently, thus ensuring that the sample is representative of the population of interest and the results are accurate and reliable.

In the following passages, we will discuss detailed advantages and disadvantages of using surveys as a research method.

Advantages of using surveys:

Large sample size: Surveys can be administered to a large number of participants, making it possible to collect data from a representative sample of the population of interest.

For example, a woman-led CSO aims to understand the prevalence of domestic violence in Afghanistan. To achieve this, they can use a survey to collect data from a representative sample of Afghan women. However, they must survey a large enough number of women to ensure that the collected data is representative of women living in Afghanistan. In this case, if they only survey a small number of women, say 20, the data collected may not represent the population of interest. The data may be biased or skewed based on the experiences and perspectives of those women. On the other hand, if they survey a larger sample of women, say 500, they can be more confident that the data collected is representative of the population of interest.

Standardization: Surveys typically use standardized questions and response options, which make it easier to compare responses across participants.

Suppose a survey is conducted to understand the public opinion on the implementation of a new traffic law in Kabul. The survey includes a question that asks, "Do you support the implementation of the new traffic law?" and offers two response options: "Yes" or "No." By using standardized response options, the survey ensures that all participants are interpreting and answering the question in the same way. This allows for a fair and accurate comparison of responses across participants, as researchers can easily calculate the percentage of participants who answered "Yes" and the percentage who answered "No."

Cost-effective: Surveys can be an affordable research method, as they can be administered online, over the phone, or in person.

For example, a group of researchers wants to find out what people in Afghanistan think about a certain issue. They can do this by conducting a survey in a village or community and using data collectors to ask questions in person. They could ask around 20 'yes' or 'no' questions that take about 20 minutes to answer. A 20-minute survey can be more cost-effective than conducting a one-hour-long interview because it requires less time, and you can talk to more people in a day.

Efficient: Surveys can be completed quickly and efficiently, making them an ideal research method when time is a constraint.

Suppose a civil society organization in Afghanistan needs to gather information on a time-sensitive issue to inform its advocacy efforts. Conducting in-depth interviews or focus group discussions may take weeks or months. In contrast, a survey can be administered to a large sample of participants in a few days. This allows the organization to quickly collect the necessary data and use it to inform their advocacy efforts before the window of opportunity closes.

Anonymity: Participants can remain anonymous when completing surveys, encouraging them to provide honest and accurate responses.

For example, in conducting research on sensitive issues like domestic violence against women in Afghanistan, where disclosure may be taboo, anonymous surveys can facilitate more reliable data. Anonymity makes participants feel more comfortable disclosing information, leading to increased trust, higher participation rates, and more honest responses.

Versatility: Surveys can be used to collect a wide range of information, including demographics, opinions, and attitudes, making it a versatile research method.

For example, CSOs may want to collect information on the demographics, needs, and opinions of the community they serve. They could use a short online survey to gather this information or an in-person survey to understand what types of services or programs community members need. Additionally, CSOs could ask for feedback on the current programs and services to gauge their effectiveness and identify areas for improvement. These are a few examples of how surveys can provide valuable information to the CSOs.

Disadvantages of using surveys**:**

Response bias: Participants may not provide honest or accurate responses due to social desirability bias[1] or other factors, which can limit the reliability and validity of the survey results.

For example, women in Afghanistan may be hesitant to express their true feelings and experiences during a survey due to fear of retribution from their families or communities. This fear may lead to underreporting of negative experiences or overreporting of positive experiences, leading to a response bias in the survey's results.

Limited depth/context: Surveys typically use closed-ended questions, which may limit the depth of the responses and the amount of detail that can be collected.

For example, a survey may ask participants to rate their level of satisfaction with the Afghan justice system on a scale of 1 to 5. Although this question can provide a general understanding of participants' attitudes, it may not capture the reasons behind their responses or the specific issues they have faced.

Sampling issues: The sample used in a survey may not be representative of the larger population, which can limit the generalizability of the results.

Suppose a survey asks people about their opinions of their government's efforts to fight corruption. The survey collects responses from 1,000 people online. However, some people who do not have internet access or do not understand the language used in the survey may be left out. This means that the survey results may not represent the views of everyone in that country. To get more accurate results, researchers could use different methods to reach more people, like doing interviews or phone surveys. This would help make sure that the survey results apply to the whole population.

Note: In general, surveys are popular research methods because they are cost-effective and efficient for collecting data from a large number of participants on various topics. It would help if you considered the advantages and disadvantages of surveys when selecting them as a research method. Depending on the situation and topic of research, different research methods may be more appropriate for collecting the data needed. However, when properly designed and executed, surveys can be a powerful tool for gathering information from a large and diverse group of participants.

2. Interviews

Interviews are a widely used data collection method in social sciences. Two or more people exchange information through questions and answers. The interviewer designs the questions to gather information from interview participants on specific topics. Traditionally, interviews involve an in-person meeting between the interviewer and interviewee. However, with the advent of technology and the COVID-19 pandemic, online or over-the-phone interviews have become more prevalent using platforms such as Skype, Zoom, and WhatsApp.

[1] Social desirability refers to a tendency of individuals to present themselves in a positive light by providing answers that are socially acceptable or desirable, rather than completely truthful or accurate. It is a type of response bias that can occur when individuals respond to questions in surveys or interviews. Social desirability bias can arise from a variety of factors, such as the desire to appear likable or competent, fear of judgment or criticism from others, or a sense of obligation to provide socially desirable responses.

Interviews can take different forms based on the degree of standardization of the interview process and the form of interviews based on their application. The degree of standardization refers to how structured or unstructured the interview process is. The form of the interview refers to the specific interview type and its intended application.

i. Types of interviews based on the degree of standardization

Structured interviews: In structured interviews, the interviewer asks a predetermined set of questions in a fixed order. The questions are usually closed-ended (meaning they require a specific response like yes or no) and have predefined response options. A structured interview aims to collect information that is easy to quantify and compare across participants.

Semi-structured interviews: Semi-structured interviews involve a set of predetermined questions, but the interviewer has the flexibility to ask follow-up questions or probe for more information. The questions are usually open-ended (meaning participants can provide a range of responses), allowing participants to share their experiences, attitudes, or perceptions in their own words. Semi-structured interviews are useful when the research objective is to explore a topic or phenomenon in-depth or to gain insights into the participants' perspectives and experiences.

For example, a one-on-one interview with a participant about his/her experience with a particular event/product, where the interviewer has a general outline of questions but can follow up with open-ended questions for more detail.

Unstructured interviews: In unstructured interviews, the interviewer asks open-ended questions and allows the conversation to flow naturally. The goal is to obtain detailed and rich information about the participants' experiences, beliefs, and attitudes. Unstructured interviews are useful for exploring complex or sensitive topics where participants may have unique experiences or perspectives.

For example, a one-on-one interview with a participant about their experiences with a particular topic, where the interviewer allows the conversation to flow naturally and follow up with additional questions as needed.

ii. Types of interviews based on form and application

In-depth Interviews: In-depth interviews are a specific type of interview that falls under the category of semi-structured interviews, where the interviewer has a general outline of questions but can ask follow-up questions to gain more information. In-depth interviews, however, go beyond just following a general outline of questions, as they aim to explore complex topics or gain a comprehensive understanding of a participant's experiences, opinions, beliefs, or attitudes.

In-depth interviews are helpful in the social sciences, as they allow researchers to gain a rich and nuanced understanding of a participant's experiences or perspectives.

For example, in the context of women in Afghanistan, in-depth interviews may be used to explore the unique challenges and experiences Afghan women face in their daily lives. These interviews

may delve into sensitive or personal topics that participants may not feel comfortable discussing in a group setting, and they may provide valuable insights into the social, political, and cultural factors that shape the lives of Afghan women.

Group Interviews: In group interviews, the interviewer interacts with a group of people simultaneously rather than one-on-one. Group interviews are often used when the research objective is to explore group dynamics, attitudes, or perceptions. There are two main types of group interviews: focus group interviews and group discussion interviews.

- **Focus group interviews** typically involve a small group of participants (usually 6-10 people) selected based on specific criteria, such as demographics or shared experiences. The participants are asked to discuss a particular topic or issue. The interviewer facilitates the discussion by asking open-ended questions and encouraging participants to share their thoughts and opinions. Focus group interviews are useful when researchers want to explore the range of perspectives within a group and understand the reasons behind different attitudes or behaviors.
- **Group discussion interviews**, on the other hand, are less structured and more flexible than focus group interviews. In group discussion interviews, the participants are invited to converse with the interviewer and each other, sharing their opinions and experiences in an informal setting. The interviewer may ask open-ended questions to prompt discussion. Still, the conversation is generally more free-flowing than in a focus group interview. Group discussion interviews are often used to explore complex social issues or to gather diverse perspectives on a particular topic.

Both focus group interviews and group discussion interviews can be conducted in person, online, or over the phone, depending on the research needs and the participants' preferences. Please see the box for examples of how a CSO could use group and focus group interviews.

Group interview: A CSO is working on a project related to women's access to education in northern Afghanistan. The CSO could conduct a group interview with a group of women from the community to gather their perspectives on the barriers they face in accessing education and potential solutions to them. The group interview could be conducted in person. The CSO could use a predetermined set of questions to guide the discussion.

Focus group interview: Alternatively, the CSO could conduct a focus group interview with a smaller group of women with experience accessing education in the same areas. The focus group interview could be more structured than a group interview, with a moderator guiding the discussion and asking specific questions about the research objectives. The moderator could also ask follow-up questions to clarify participants' responses and encourage discussion among the group.

In both cases, the CSO could use the group or focus group interview information to inform their project and advocate for policies or practices that better support women's access to education in Afghanistan.

There are several **advantages and disadvantages** of using interviews in social research methods. In the following, we explore each in detail.

Advantages of interviews:

Provide rich data: Interviews provide researchers with rich, detailed data that can be used to gain insights into participants' experiences, perspectives, and opinions. This data can be used to generate theories, identify patterns, and explore social phenomena in depth.

For example, say a group of researchers are interested in understanding the experiences of CSOs in Afghanistan working on women's rights issues. They could conduct in-depth interviews with representatives from several different CSOs to gather rich, detailed data about their experiences, perspectives, and opinions. During the interviews, the researcher could ask open-ended questions such as "Can you tell me about a time when your organization faced challenges in promoting women's rights in Afghanistan?" or "How do you view the role of women in Afghan society?" These types of questions can elicit rich and nuanced responses from the interviewees, providing the researcher with a deep understanding of the issues CSOs face in this field.

Are highly adaptive: Interviews can be conducted in different formats, including face-to-face, over the phone, or online. This flexibility allows researchers to adapt their approach to suit the needs of their participants, making it easier to gather data from a diverse range of participants. This is particularly useful for gathering data from women or from people living in rural or remote parts of the country.

Allow for building rapport: Interviews allow researchers to build rapport with participants and establish a more personal relationship with them. This can encourage participants to open up and share more information than they would in a more formal setting, leading to more authentic and nuanced data.

For example, a female researcher interviews Afghan women who have experienced gender-based violence. The researcher can create a safe and comfortable environment for the women to share their experiences by building rapport with each participant and establishing a more personal relationship. The researcher can demonstrate empathy, validate the women's experiences, and show that they are being heard and taken seriously. As a result, the women may feel more comfortable sharing intimate details about their experiences and feelings, which can lead to more authentic and nuanced data.

Able to provide real-time feedback: Interviews can provide real-time feedback to researchers, allowing them to adjust their questions or follow-up on points of interest as they arise. This can lead to more in-depth and insightful data.

For example, a CSO in Afghanistan is conducting an interview with a group of women to understand their experiences with accessing healthcare services. During the interview, one of the participants mentions that she has experienced discrimination from healthcare providers because of her ethnicity. This comment prompts the researcher to ask follow-up questions to understand better the participant's experience and how it relates to ethnic discrimination in healthcare.

Disadvantages of interviews:

Influenced by Interviewer bias: The interviewer's own biases, assumptions, or personal characteristics can influence the data that is collected, leading to biased or incomplete results.

For example, imagine a researcher is conducting interviews to understand public opinion on a controversial issue. The researcher strongly supports one side of the issue and may unconsciously steer the conversation in a way that supports their own beliefs. As a result, the data collected may be biased towards one perspective.

Time-consuming and resource intensive: Conducting interviews can be time-consuming and resource-intensive, particularly if the sample size is large or the research is conducted in multiple locations.

For instance, if a researcher aims to collect data from multiple regions or provinces in Afghanistan, he/she may need to travel long distances, which could be costly and time-consuming. Additionally, language and cultural barriers may require the use of translators, adding another layer of complexity and cost to the research process. The need to ensure the safety of participants and researchers in conflict-affected areas may also require additional resources, such as security personnel, which can further increase the costs of the study. All these factors can make interviews a challenging and potentially costly method.

Has limited generalizability: The findings from interviews may not be generalizable to the larger population or other contexts, particularly if the sample size is small or the sample is not representative.

In other words, consider that a study is conducted in a specific region of the country, with a small sample size of participants who belong to a certain ethnic or socio-economic group. The findings from this study may not be applicable to other regions of the country or to people outside of the selected group. This limited generalizability can also occur if the sample is not representative of the larger population, such as only interviewing individuals who have access to technology in a study on digital literacy in Afghanistan. The results of the study may not accurately reflect the experiences and perspectives of individuals who do not have access to technology.

Limited scope: The limited scope of interviews refers to the fact that they may not be the best research method for certain types of research questions, particularly those that require objective and quantifiable data or data from a large population. Interviews may be better suited for exploring subjective experiences, opinions, and perspectives.

For example, if a researcher is interested in understanding the subjective experiences of people in a particular community in Afghanistan, conducting interviews with a small sample of people may be appropriate. However, if the researcher wants to understand the prevalence of a particular health condition in the same community, a survey or other quantitative method may be more appropriate. In this case, interviews would not be the best choice as the sample size would need to be much larger to obtain generalizable results.

Note: Interviews can provide rich and detailed data, but as a researcher, you should be aware of the limitations and potential biases associated with this research method and should carefully consider whether it is the most appropriate method for your research question and context.

3. Mixed research – a combination of surveys and interviews

By integrating surveys and interviews, you can effectively merge quantitative data from surveys with qualitative insights from interviews. This approach enables you to gain a comprehensive understanding of the context while also obtaining numerical data. The use of both qualitative and quantitative methods allows you to examine a wide range of issues from multiple perspectives, facilitating the identification of relationships and patterns in the data.

Mixed methods research can be useful in a variety of situations, particularly when your research question is complex and cannot be adequately answered using a single method. Here are some situations when mixed methods research may be appropriate:

When a comprehensive understanding of the research topic is required: By combining both quantitative and qualitative methods, mixed methods research can provide a more comprehensive understanding of the research topic.

For example, if a CSO is interested in evaluating the effectiveness of an education program in improving student learning outcomes, they could use mixed methods research to gather both quantitative data, such as test scores, and qualitative data, such as student and teacher experiences. This approach would allow them to obtain a more holistic view of the program's impact, resulting in a more robust and nuanced understanding of the research question.

When multiple perspectives are needed: Sometimes, a research question requires multiple perspectives to be fully understood. Mixed methods research can combine quantitative data with qualitative data to provide a more nuanced and comprehensive understanding of the research question.

For example, a CSO working on women's empowerment may want to know how different stakeholders, such as women, men, and community leaders, view the effectiveness of their programs. They could use mixed methods research by combining quantitative data on program participation rates with qualitative data from focus groups with women and interviews with men and community leaders to get a more nuanced and comprehensive understanding of program effectiveness.

When triangulation is needed: Triangulation refers to the use of multiple methods to investigate a research question in order to validate or confirm findings. Mixed methods research can be used for triangulation purposes, with the quantitative and qualitative data being used to cross-validate each other and strengthen the research findings.

For example, a CSO in Afghanistan working on community development may want to know the impact of their program on the community's economic development. They could use mixed methods research by combining quantitative data on employment rates with qualitative data from key informant interviews to validate and confirm the findings. A CSO in Afghanistan working on health may conduct a survey on the health behaviors of a community and find unexpected disparities in health outcomes between different ethnic groups. They could use mixed methods research by conducting follow-up qualitative interviews to explore the reasons behind these disparities and gain a more comprehensive understanding of the issue.

When there is a need to explore unexpected findings: When using a single method, unexpected findings may arise that cannot be explained by the method used. Mixed methods research can allow researchers to explore these unexpected findings by using qualitative methods to further investigate the quantitative data.

For example, a CSO in Afghanistan working on health may conduct a survey on the health behaviors of a community and find unexpected disparities in health outcomes between different ethnic groups. They could use mixed methods research by conducting follow-up qualitative interviews to explore the reasons behind these disparities and gain a more comprehensive understanding of the issue.

When a mixed methods approach is appropriate for the research field: Some research fields, such as education or health, often employ a mixed methods approach because the research questions are complex and require a comprehensive understanding that cannot be achieved through a single method.

For example, a CSO in Afghanistan working on education may want to know whether their program is successful in improving student learning outcomes. Given the complex nature of the research question, a mixed methods approach may be appropriate for this research field. The CSO could use quantitative data on test scores along with qualitative data on student and teacher experiences to gain a more comprehensive understanding of the program's impact.

Here are possible scenarios a local CSO may decide to use mixed methods research:

Conduct a needs assessment: A CSO in Afghanistan working on education may want to conduct a needs assessment to identify the needs and priorities of the community they serve. They could use mixed methods research by combining quantitative data such as enrollment rates and demographic data with qualitative data from focus groups and individual interviews with parents, students, and community leaders. This approach would provide a more comprehensive understanding of the educational needs and priorities of the community and help the CSO develop more targeted and effective interventions.

Evaluate program effectiveness: A CSO in Afghanistan working on health may want to assess the impact of their health program on maternal and child health outcomes. They could use mixed methods research by combining quantitative data such as health indicators and program outcomes with qualitative data such as program participant experiences and stakeholder perspectives. This approach would allow the CSO to assess the effectiveness of their program in improving maternal and child health outcomes and identify areas for improvement.

Inform policy advocacy efforts: A CSO in Afghanistan working on women's rights may want to advocate for policy change to improve women's access to education. They could use mixed methods research by combining quantitative data on enrollment rates and educational outcomes with qualitative data such as women's stories and experiences to inform policy advocacy efforts. This approach would provide a more comprehensive understanding of the barriers that Afghan women face in accessing education and help the CSO advocate for policy change that is grounded in the experiences of Afghan women.

Engage communities in the research process: A CSO in Afghanistan working on community development may want to engage the community in the research process to ensure their voices are heard. They could use mixed methods research by combining participatory methods such as focus groups and community-led data collection with quantitative data such as demographic data to engage the community in the research process. This approach would help the CSO empower the community and ensure that the research is grounded in their experiences and needs.

There are several types of mixed-methods research that researchers can use depending on the research questions, research design, and data collection methods. Some of the most common types of mixed methods research include:

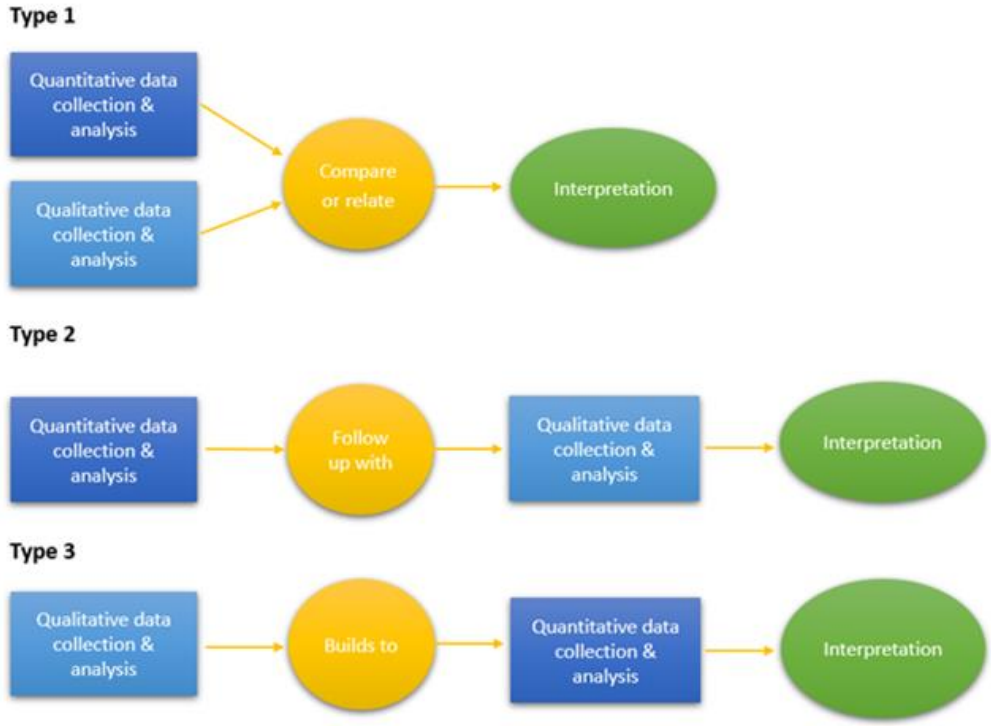
Type 1 (Concurrent): The quantitative and qualitative data collection and analysis are conducted at the same time, and then the results are compared during the interpretation phase. This design allows researchers to triangulate the data, which can increase the credibility and validity of the findings.

Type 2 (Explanatory): In this type, the researcher first collects and analyzes quantitative data and then uses qualitative data to help explain or expand upon the quantitative findings. In this design, the initial quantitative data collection and analysis phase helps to identify patterns or relationships between variables, while the subsequent qualitative data collection and analysis phase provides further explanation or elaboration on the initial findings. The qualitative data can also help to identify and explore unexpected or contradictory results from the quantitative analysis.

Type 3 (exploratory): In this approach, the researcher first collects and analyzes qualitative data and then uses quantitative data to help confirm or expand upon the qualitative findings. In this design, the initial qualitative data collection and analysis phase helps to explore and identify themes, patterns, and relationships between variables. The subsequent quantitative data collection and analysis phase then allows the researcher to test the generalizability of the qualitative findings to a larger population.

To help you understand the variation of mixed research methods, please see the illustration below:

Figure 1: Illustration of three main types of mixed research method



There are several **advantages** of using mixed methods research, including:

Comprehensiveness: Mixed methods research allows researchers to gather both qualitative and quantitative data, providing a more complete and comprehensive picture of the research topic. This approach enables researchers to examine research questions from multiple perspectives, leading to a more complete understanding of the research problem.

For example, you might use a survey to collect quantitative data about the prevalence of mental health disorders in a community and then conduct in-depth interviews to collect qualitative data on the community's experiences with mental health services. By combining these data sources, the researcher can develop a more comprehensive understanding of the mental health needs and experiences of the community.

Triangulation: By using multiple sources of data and methods of data collection, mixed methods research can help to enhance the validity and reliability of research findings. This is because findings from one method can be compared and contrasted with findings from another method, and any discrepancies or inconsistencies can be addressed.

For example, you might use a survey to collect data on the effectiveness of a literacy program and then conduct observations of the program and interviews with participants to collect qualitative data on their experiences. By triangulating or cross-checking these data sources, you can gain a more holistic understanding of the program's impact.

Richness: Qualitative data can provide a rich, detailed understanding of complex phenomena that may not be fully captured by quantitative data alone. By incorporating qualitative data into the

research design, researchers can gain a deeper understanding of the social and cultural context of the research topic, as well as the experiences and perspectives of the people involved.

For example, you could study the experiences of refugees resettling in a new country by conducting individual interviews to gather rich qualitative data on their experiences of displacement, resettlement, and integration, in addition to using demographic data (quantitative) to contextualize the experiences of different refugee groups.

Flexibility: Mixed methods research allows researchers to adapt their research design and methods based on the research question and the data collected. This flexibility can be particularly useful when the research topic is complex or poorly understood and when new information or perspectives emerge during the research process.

For example, you could study the impact of a new health program in a rural community using a mixed methods approach to be flexible and adapt to the changing needs of the community. You might initially plan to conduct a survey and interviews but then discover that community members prefer participatory methods such as community mapping and group interviews.

Practicality: Mixed methods research can be particularly useful in applied research settings, such as community-based organizations or government agencies. By using both quantitative and qualitative data, researchers can provide practical, actionable recommendations that can inform policy and practice.

For example, you are studying the effectiveness of a community-based health intervention might use both quantitative data, such as program outcomes (e.g., decreased rates of a specific disease), and qualitative data, such as community feedback on the program's strengths and weaknesses to provide practical recommendations for program improvement and sustainability. This can help inform policy and practice to benefit the community.

Disadvantages of using mixed methods research:

Complexity: Conducting mixed-methods research can be complex and time-consuming. For example, if a researcher is conducting a study on a community health intervention, they may need to collect both quantitative data (such as surveys on health outcomes) and qualitative data (such as interviews with community members). This requires advanced skills in both types of research methods and can increase the time and resources needed to complete the study.

Integration: Integrating quantitative and qualitative data can be challenging. For example, if a researcher collects survey data on community health outcomes and then conducts interviews with community members, they may struggle to integrate the two sets of data into a coherent analysis. This requires careful planning and execution to ensure that the findings are meaningful and valid.

Bias: Mixed methods research can be subject to bias. For example, if a researcher has personal biases that influence their interpretation of the data, they may not be able to provide an objective analysis. This can lead to less reliable and valid research output.

Cost: Mixed methods research can be more expensive than using a single research method. For example, suppose a researcher is conducting a study on the effectiveness of a community health

intervention. In that case, they may need to hire additional staff or use more resources to collect both quantitative and qualitative data. This can increase the cost of the study compared to using only one research method.

Overall, while mixed-methods research offers many benefits, you must carefully consider this approach's potential challenges and limitations before embarking on a mixed-methods research project.

To better understand the concepts of mixed methods research, here are some scenarios to consider using in-depth interviews, focus group discussions, or mixed methods.

In-depth interview: You are interested in exploring the experiences of women who have been victims of gender-based violence in Afghanistan. You conduct in-depth interviews with a sample of women who have experienced such violence, asking questions about the circumstances leading up to the violence, their experiences during the incident, and their perceptions of the justice system's response. The interviews provide a detailed understanding of the complexities of gender-based violence and the challenges women face in accessing justice in Afghanistan.

Focus group discussion: You work for a human rights organization that is interested in understanding the perceptions of Afghan men and women regarding gender equality and justice. You conduct a series of focus group discussions with men and women in different regions of Afghanistan. The discussions cover a range of topics, including the role of women in society, the justice system's responsiveness to women's needs, and the barriers to gender equality. The focus group discussions provide insights into the cultural and social factors influencing attitudes towards gender and justice in Afghanistan.

Mixed methods: You and your team of researchers are interested in understanding the impact of a recent legal reform aimed at improving women's access to justice in Afghanistan. You use a mixed methods approach, conducting a survey of a representative sample of Afghan women and men to gather quantitative data on the reform's impact. You also conduct in-depth interviews with a smaller sample of women who have used the new legal provisions to access justice, exploring their experiences in detail. The mixed methods approach provides a comprehensive understanding of the reform's impact, including both quantitative and qualitative data on women's experiences accessing justice in Afghanistan.

Secondary Research

Secondary research is a research method that involves collecting and analyzing data and information that has already been published by others. Secondary research involves using existing sources of information, such as books, articles, reports, databases, and other sources, to answer research questions or explore a particular topic of interest.

Secondary research is a very common research method used in lieu of collecting your own primary data. It is often used in research designs or as a way to start your research process if you plan to conduct primary research later on.

Since it is often inexpensive or free to access, secondary research is a low-stakes way to determine if further primary research is needed, as gaps in secondary research are a strong indication that primary research is necessary. For this reason, while secondary research can theoretically be exploratory or explanatory in nature, it is usually explanatory: aiming to explain the causes and consequences of a well-defined problem.

In general, there are six sources of information for secondary research:

1. **Internal Secondary Research:** This involves using data and information that is already available within an organization, such as sales reports, customer feedback, financial records, and other internal documents. This type of secondary research is useful for evaluating the performance of a business or organization, identifying trends, and making informed decisions.

2. **External Secondary Research:** This involves using data and information that is available outside of an organization, such as government reports, market research studies, industry reports, and other published sources. This type of secondary research is useful for understanding market trends, consumer behavior, industry benchmarks, and other external factors that can impact a business or organization.

3. **Published Secondary Research:** This involves using published sources of information, such as books, academic journals, and trade publications. This type of secondary research is useful for gaining a deeper understanding of a research topic, exploring historical trends, and identifying key theoretical concepts.

4. **Online Secondary Research:** This involves using online sources of information, such as search engines, databases, and websites. This type of secondary research is useful for gathering data on current events, trends, and news related to a research topic.

5. **Government and NGO Reports:** This involves using reports and other publications produced by government agencies and non-governmental organizations. This type of secondary research is useful for understanding public policy, social issues, and other topics related to government and non-profit organizations.

6. **Market Research Reports:** This involves using reports and other publications produced by market research firms. This type of secondary research is useful for understanding market trends, consumer behavior, and other factors that can impact business decisions.

Unlike primary research, which involves collecting new data through methods such as surveys, interviews, and experiments, secondary research does not involve collecting new data. Instead, secondary research relies on existing data and information that has already been collected and published by other researchers or organizations.

While secondary research can be cost-effective and time-saving, it may also be limited by the quality and availability of existing data and information. For example, some sources may have biases or limitations in their scope or methodology, which can affect the reliability and validity of the findings.

Additionally, researchers may face challenges in accessing and interpreting secondary data, particularly if the sources are complex or require specialized knowledge to understand. It may also be difficult to ensure consistency and comparability across different sources of secondary data, which can limit the ability to draw meaningful conclusions or generalize findings.

Finally, it is noteworthy that secondary research should not be seen as a replacement for primary research, as each method has its own strengths and weaknesses. Rather, researchers should use secondary research as a complementary approach to help guide their research questions and design and to supplement or validate primary research findings.

Secondary research is often used as a starting point for research projects or to supplement primary research data. It can provide a valuable foundation for developing research questions, identifying knowledge gaps, and understanding a research topic's context and background.

Advantages of using secondary research methods:

Cost-effective: Secondary research methods can be cost-effective compared to primary research methods. In the case of Afghanistan, conducting primary research on women's rights and justice issues may be costly and challenging due to security concerns and limited resources.

Time-saving: Secondary research methods can also be time-saving. Researchers can quickly access and analyze existing data and information on Afghanistan's women's rights and justice issues without lengthy data collection processes.

Wide range of sources: Secondary research methods offer a wide range of sources to draw from, including government reports, academic articles, and NGO publications. This can help provide a comprehensive and nuanced understanding of women's rights and justice issues in Afghanistan.

Historical analysis: Secondary research methods can help conduct historical analysis and identify trends over time. For example, researchers could use secondary sources to trace the evolution of women's rights in Afghanistan from the pre-Taliban era to the present day.

Disadvantages of using secondary research methods:

Biased or incomplete data: One major disadvantage of secondary research is the potential for biased or incomplete data. In the context of Afghanistan, there may be a lack of reliable and up-to-date data on women's rights and justice issues due to limited access or underreporting.

Limited control: Researchers may have limited control over the quality of data and information obtained through secondary research. For example, some sources may not include information on specific aspects of women's rights and justice issues that the researcher is interested in.

Limited context: Secondary research methods may not provide the same level of context and nuance as primary research methods. In Afghanistan, this may be particularly relevant given the complex political and cultural landscape that affects women's rights and justice issues.

Lack of engagement: Secondary research methods do not allow for direct engagement with women and CSOs in Afghanistan who are working on women's rights and justice issues. This can limit the researcher's ability to fully understand the perspectives and experiences of those directly affected by the issues being studied.

In many cases, researchers use a combination of primary and secondary sources to collect data. The topic of study, the research environment, and the availability of resources influence the choice of research method. Researchers select methods that are most appropriate for their study topics, protect research participants or subjects, and align with their research approaches.

Other Common Social Research Approaches

In this section, we will cover case studies and success stories. We will begin by providing a comprehensive overview of case studies, including detailed examples to contextualize their application. Following that, we will touch on success stories, which are not typically considered a primary research approach, but are important to mention as donors and funding agencies often require civil society organizations to report on their successes.

1. Case Studies

A case study is a research method that involves an in-depth examination of a single individual, group, or event to comprehensively understand the underlying mechanisms, processes, and factors that contribute to a particular phenomenon. Case studies can be conducted using various data collection techniques, including interviews, observations, and document analysis.

Case studies are often used in social sciences, such as psychology, sociology, and anthropology, as well as in business, education, and healthcare, among other fields. They allow researchers to explore complex issues in real-life contexts, providing rich and detailed information that can help inform theory development, policy, and practice.

Some of the key characteristics of a case study include a focus on a single case or multiple cases, an emphasis on understanding the context and setting in which the case occurs, and the use of multiple sources of data to triangulate and verify the findings. Additionally, case studies often involve a longitudinal approach, following the case over an extended period to understand how it evolves over time.

Advantages of using the case study approach:

In-depth analysis: Case studies allow researchers to conduct an in-depth analysis of a complex phenomenon. For example, a case study on the role of CSOs in promoting human rights in Afghanistan can provide a detailed understanding of the challenges and opportunities faced by CSOs in a complex political and social context.

Rich data: Case studies often involve multiple data sources, including interviews, observations, and documents.

For instance, a case study on the impact of CSOs on the participation of women in Afghan politics can involve interviews with CSO leaders, observations of their activities, and analysis of policy documents and media coverage. This approach can provide a rich and diverse dataset that captures multiple perspectives on the case.

Real-life context: Case studies are conducted in real-life contexts, which provide a more realistic and naturalistic setting than laboratory experiments or surveys. This approach allows researchers to capture the complexity and nuances of the case.

For example, a case study on the impact of CSOs on promoting peace in Afghanistan can involve observations of peacebuilding initiatives and their outcomes in different regions of the country.

Disadvantages of using case studies:

Limited generalizability: Case studies are often limited to a specific case or a small number of cases, which makes it difficult to generalize the findings to other cases or populations.

For example, a case study on the role of CSOs in promoting human rights in Parwan province may not be directly applicable to other provinces with different political and social contexts.

Subjectivity: Case studies are highly dependent on the researcher's interpretation of the data, which can lead to subjectivity and bias in the analysis.

For instance, a researcher may have a preconceived notion of the impact of CSOs on peacebuilding in Afghanistan and interpret the data to support this view.

Time-consuming and expensive: Case studies can be time-consuming and costly, as they often require multiple sources of data and a longitudinal approach.

For example, a case study on the impact of CSOs on the access of marginalized groups to education in Afghanistan may require interviews with students, teachers, and CSO staff, as well as analysis of educational policies and data over a period of several years.

Ethical concerns: Case studies can raise ethical concerns, such as confidentiality and informed consent, especially when dealing with sensitive topics or vulnerable populations.

For example, a case study on the experiences of Afghan refugees working with CSOs may raise concerns about the risk of harm to participants if their identities are revealed.

It is worth noting that these advantages and disadvantages may vary depending on the research question, the case under study, and the research design. Therefore, you need to carefully consider the benefits and limitations of using case studies before deciding to use this method.

*Examples of case studies - s*ample of topics on which you can conduct case studies in Afghanistan:

Gender: A case study could be conducted on the situation of Afghan women's access to education, focusing on a particular province or district. Researchers could examine the policies, attitudes,

and practices that affect girls' and women's access to education and the impact of education on their lives.

Justice: A case study could be conducted on the Afghan justice system, focusing on a particular court or case. Researchers could examine the legal procedures, the role of different actors in the system, and the outcomes of the case to understand the strengths and weaknesses of the system and identify areas for improvement.

Corruption: A case study could be conducted on a corruption case in Afghanistan, focusing on the individuals and institutions involved in the case. Researchers could examine the root causes of corruption, the impact of corruption on society and the economy, and the measures taken to prevent and punish corruption.

Human rights: A case study could be conducted on the situation of Afghan refugees and internally displaced persons (IDPs), focusing on a particular camp or community. Researchers could examine the living conditions, the access to basic services and rights, and the protection mechanisms to support refugees and IDPs.

Please note that these are just examples. The research questions, case selection, and data collection methods would depend on the specific research aims and objectives.

Developing a case study in the context of Afghanistan can be a challenging but rewarding process.

i. Key steps in developing a case study

Step 1 - Identify the research question: Determine the research question that the case study aims to address. For example, how has the role of women changed in Afghan society over the past two years?

Step 2 - Select the case: Choose a case relevant to the research question. For example, a specific organization or community has been promoting women's rights in Afghanistan.

Step 3 - Collect data: Collect data through a variety of methods, such as interviews, surveys, and document analysis. For example, conduct interviews with members of the organization or community, as well as former government/current DFA officials and civil society activists.

Step 4 - Analyze data: Analyze the data collected through various methods to identify patterns, themes, and insights related to the research question. (For a more detailed discussion on data analysis, refer to chapter 15.)

Step 5 - Develop the case study: Develop the case study by organizing the data and analysis into a narrative that presents a detailed description of the case, its context, and the key findings and insights.

Step 6 - Review and refine: Reviewing and refining a case study involves carefully examining the case study to ensure it is accurate, clear, and concise. This may include reviewing the collected data, checking for errors or inconsistencies, and ensuring the evidence supports the analysis and

conclusions. Additionally, refining the case study involves making sure it is written clearly and concisely, with key points and findings presented logically and easily. The goal is to make sure the case study is well-written and effectively communicates the research findings to the intended audience.

Step 7: Disseminate the findings: Share the findings of the case study with relevant stakeholders, such as the organization or community studied and civil society groups. Consider publishing the case study in academic journals or other publications to reach a wider audience.

Please note that the steps may vary depending on the specific research question, the case under study, and the data collection and analysis methods used.

ii. Structure of a case study

There is no one-size-fits-all structure for case studies, as it can vary significantly depending on the study area. Depending on their criticality or importance, certain study elements may need to be highlighted more than others. For instance, some case studies may adopt a traditional scientific paper or thesis format, with distinct sections for methods, results, and discussion. On the other hand, some case studies may adopt a narrative or storytelling approach. However, there are some common elements that can be included in a basic case study structure, as outlined below.

Possible sections	Description
Introduction and Background	The introduction should provide a brief overview of the case study and the key characters involved in decision-making. It should also contextualize the issue being addressed and capture the reader's interest. The background section should include information on the goals, objectives, and purpose of the case study and the specific humanitarian sector being addressed (e.g., women's empowerment, legal awareness, advocacy). It should also describe the local environment, including cultural norms, values, legal structures, and political context. Providing rich contextual details can help the reader understand how these factors inform decision-making.
Method of the case study	This section should describe the research methods used to collect data for the case study. Typically, case studies use qualitative data such as interviews, observations, and analysis of primary and secondary sources (e.g., newspaper articles, photographs, and official records). Occasionally, case studies may also use quantitative data. The aim of the study is to gain a thorough understanding of the case and its context.
Findings	This section should combine all relevant aspects of the case to give as complete a picture as possible of the subject. Identify key problems, why they exist, how they impact the case, and, if possible, who is responsible. The section should also provide contextual details about the case, connect it back to the literature and the author's work, and discuss how it fits into broader patterns or debates. Direct quotes, photos, references, and any other helpful information should be

	included.
Conclusion	The conclusion should summarize the discussions and analysis of the case study and provide any additional content-related information. It should state the significance of the case study and conclude the findings and thoughts.
Recommendations	In this section, specific strategies for accomplishing the proposed solution should be discussed. If applicable, further action to resolve some of the issues should be recommended. The section should answer the questions of what should be done and who should do it.

2. Success Stories

CSOs frequently engage in humanitarian and development projects that external donors and partners fund. To track the progress and impact of projects, funding agencies often require regular reporting and success stories. While not directly related to social research work, it is essential for CSO staff members to develop compelling success stories to showcase their organization's work. This document will provide guidelines on creating a success story that effectively highlights the achievements and impact of CSO projects and initiatives.

i. What are success stories?

Success stories are narratives that describe positive outcomes or achievements in a particular field or context, typically highlighting successful projects, initiatives, or programs that have resulted in positive changes for individuals, organizations, or communities. They can be used to showcase best practices, lessons learned, and examples of effective strategies that can be replicated in other contexts.

In the context of development and humanitarian work, success stories are often used to document and disseminate the impact of projects and programs. They can be shared with donors, policymakers, and other stakeholders to demonstrate the intervention's effectiveness and encourage further investment in similar initiatives. Success stories can also motivate and inspire project participants and build momentum for future efforts.

ii. Steps in developing your success story

Step one: Choose your success story topic:

In choosing a success story topic, pay particular attention to the type of activity and the stage of the project/program.

- If your project or program activity is in the early stages, highlight planned activities and anticipated outcomes, and choose a success story that may help you create partnerships. Document essential policy changes that may impact the future implementation of project activities.
- If your program or activity advances, share examples of early changes to show progress. However, you have not achieved the long-term outcomes yet. Use preliminary data to demonstrate how your program reaches or serves a specific population.

Step two: Think about your audience:

Before writing your story, consider your primary audience. Identify multiple audiences for your success story, recognize that their needs, interests, or concerns may differ, and think about the following points:

- Who is your audience?
- What does your audience care about?
- What type of outcomes will be meaningful to your audience?
- How will your audience use your success story?

Step three: Write your story:

When developing your story, consider the formatting style required by your organization or funding agency. In most cases, the formula for preparing a success story is simple:

- Use statistics and quantitative data to highlight project or program achievements. Include illustrations/photos of how a project has improved people's lives or made a difference in the activity area. Use direct quotes from beneficiaries.
- Highlight your program/project work through the lens of the people affected by it by providing real-life examples.

Additional tips for writing your story:

- Keep paragraphs short—no more than three to four sentences.
- Keep the story to no more than two pages—in some cases; donors might require one-page success stories.
- Stick to the facts. Do not insert an opinion unless you attribute it to someone.
- Avoid passive voice (e.g., "training sessions were provided."). Use active voice (e.g., "X partner provided Y training sessions.") and clearly define who is doing the action in every sentence.
- Some donors will require relevant photos as part of your success story; take good photos.
- Always ensure you get consent to use photos of beneficiaries, stakeholders, or staff in your success stories.
- Limit the use of acronyms. If you use acronyms, spell them out on the first mention.
  Use plain language and avoid jargon. Readers often skip over terms they do not understand, hoping to get their meaning from the rest of the sentence.

Key Points

In summary, the main takeaways from this chapter are:

Primary Research: Collects new data directly from the source to answer research questions, gain insights, and inform decision-making processes. Surveys, interviews, and mixed approaches are common methods used to collect primary data. Each method has its strengths and weaknesses depending on the research question, target population, and context. Main types of primary research:

- **Surveys**: Surveys involve collecting data from a large number of people through questionnaires. Surveys can be conducted through various methods, such as online, over-the-phone, or in-person. Surveys help collect quantitative data that can be analyzed statistically and provide a snapshot of participants' opinions and behaviors.
- **Interviews**: Interviews involve one-on-one conversations between the researcher and the participant. They can be structured, semi-structured, or unstructured. Interviews are useful for collecting in-depth qualitative data and can provide insight into participants' thoughts, experiences, and opinions. Interviews are generally categorized into three formats:

    1. **In-depth interviews** are highly structured interviews that focus on a particular topic, behavior, or experience. They involve asking open-ended questions and allowing participants to share their stories and experiences.
    2. **Group interviews** are conducted with a small group of people with similar characteristics or experiences. Group interviews can be helpful in exploring group dynamics, social norms, and attitudes.
    3. **Mixed approach:** This approach combines quantitative and qualitative research methods in a single study. It allows researchers to triangulate data from multiple sources and gain a more comprehensive understanding of the research question.

Secondary Research: Analyze existing data to gain insights, inform decision-making processes, and provide a deeper understanding of the research question. Secondary research can be sourced from academic journals, reports, government publications, databases, websites, and other published materials.

Other types of research methods:

- **Case Studies**: Case studies involve an in-depth examination of a single person, group, or situation. Case studies are useful for understanding complex phenomena and can provide rich qualitative data. They are often used in social sciences, education, and healthcare.
- **Success Stories:** Success stories are case study that focuses on successful individuals or organizations. Success stories can help understand best practices, success factors, and lessons learned. They are often used in marketing and business research.

Further Readings

Readings related to case studies:

- "Case Study Research: Design and Methods" by Robert K. Yin (https://scholar.google.com/scholar?q=Case+Study+Research%3A+Design+and+Methods+by+Robert+K.+Yin&hl=en&as_sdt=0&as_vis=1&oi=scholart)
- "Developing Case Study Research: A Beginner's Guide" by Matthew R. Miles and Michael Huberman (https://www.researchgate.net/publication/308852360_Developing_Case_Study_Research_A_Beginner%27s_Guide)
- "Case Study Methodology in Business Research" by Jan Dul and Tony Hak (https://www.researchgate.net/publication/228676975_Case_Study_Methodology_in_Business_Research)
- "Case Studies in Global Health: Millions Saved" by Ruth Levine, et al. (https://www.ncbi.nlm.nih.gov/books/NBK11775/)
- "The Case Study Handbook: How to Read, Discuss, and Write Persuasively About Cases" by William Ellet (https://www.academia.edu/36815069/The_Case_Study_Handbook_How_to_Read_Discuss_and_Write_Persuasively_About_Cases_Second_Edition)
- Case Study Research: What, Why and How?" by Arch G. Woodside (https://www.researchgate.net/publication/228678096_Case_Study_Research_What_Why_and_How)

These guidelines provide valuable insights into conducting research on gender-based violence and justice issues, including ethical considerations, data collection methods, and analysis techniques. They also include practical advice on developing case studies, including identifying research questions, selecting cases, and writing up findings.

- UN Women's "Guidelines for Producing Statistics on Violence against Women: Statistical Surveys" (https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2014/11/unwomen_guidelines_svsurvivalmanual_en.pdf?la=en&vs=4418)
- UNICEF's "Guidelines for conducting ethical research and evaluations with children and young people" (https://www.unicef.org/eca/sites/unicef.org.eca/files/2019-06/Ethical_guidelines_Research_Evaluations_Children_Young_People.pdf)
- UNFPA's "Guidelines for conducting research on gender-based violence against women" (https://www.unfpa.org/sites/default/files/resource-pdf/GBV%20Research%20Guidelines.pdf)
- UNHCR's "Guidelines on Gender-Based Violence Interventions in Emergencies" (https://www.unhcr.org/4e9e139c9.pdf)
- The World Health Organization's "Ethical and safety recommendations for research on domestic violence against women" (https://www.who.int/gender/violence/womenfirtseng.pdf)

Readings related to success stories:

- The Success Story Toolkit by the United Nations Development Programme (UNDP) https://www.undp.org/content/dam/undp/library/corporate/communications/SST_Toolkit_2016.pdf
- The Guide to Developing a Success Story by the W.K. Kellogg Foundation https://www.wkkf.org/resource-directory/resource/2006/02/guide-to-developing-a-success-story
- The Success Stories Manual by the United States Agency for International Development (USAID) https://www.usaid.gov/sites/default/files/documents/1870/SuccessStoriesManual.pdf
- The Success Story Writing for Social Change Toolkit by the International Center for Research on Women (ICRW) https://www.icrw.org/wp-content/uploads/2016/10/Success-Story-Writing-for-Social-Change-Toolkit.pdf
- The Success Story Development Guide by the Community Toolbox https://ctb.ku.edu/en/table-of-contents/advocacy/advocacy-principles/develop-a-success-story/main

CHAPTER 3: RESEARCH ENVIRONMENT AND CONTEXT

Contents

This chapter aims to help you navigate the challenging environments presented by countries like Afghanistan that are either in conflict or post-conflict situations. Additionally, the chapter covers the social and cultural complexities that researchers should consider when designing and conducting research in Afghanistan.

The chapter covers the following topics:

- A contextual description of the research environment in Afghanistan.
- A discussion of the social and cultural complexities that may arise during research.
- Strategies for navigating complex social and cultural realities, including coordination with de facto authorities.
- Safety and security measures should be considered in research, especially at the field level.

Overall, the chapter underscores the importance of understanding the context and environment of the research location and population. After reading through this chapter, readers can effectively design their research studies and allocate time and resources for subsequent phases, as discussed in later chapters.

Research Environment and Context

Conducting research in challenging contexts, such as conservative, in-conflict, or post-conflict environments, can be daunting for researchers. Afghanistan, a country marred by ongoing militarized violence and human rights abuses, presents unique challenges for researchers. Despite decreasing violence levels since August 2021, Afghanistan continues to exhibit heightened criminal and armed gang activities that pose significant risks to researchers.

One of the significant challenges in conducting research in Afghanistan is the limited availability of information and guidance. Ongoing conflicts and human rights abuses may restrict access to reliable data and resources, leaving researchers without adequate information to guide their research. This lack of knowledge can hinder the planning and implementation of research projects, requiring researchers to rely on alternative approaches and sources of information, which may not always be comprehensive or up-to-date.

Cultural and social dynamics also pose challenges for researchers in Afghanistan. The country is known for its diverse cultural and religious beliefs, which significantly shape social norms and behaviors. Some groups of people may be inaccessible for interviews due to traditional or religious restrictions, and specific topics may be considered taboo or off-limits for discussion. This can make it challenging for researchers to explore certain areas of interest and may require them to navigate social dynamics with sensitivity and respect while ensuring that their research does not inadvertently offend or harm local communities.

Security concerns are another significant challenge in conducting research in Afghanistan. The country has a history of conflict and ongoing security challenges, posing threats to the safety and security of researchers. The fluid and unpredictable security situation[2] in Afghanistan requires researchers to carefully assess the risks and take appropriate measures to mitigate them. This may involve working with security experts, adhering to strict security protocols, and being prepared for unexpected situations.

Limited local research capacity is an additional challenge in Afghanistan. Factors such as low literacy and education levels, underdevelopment, and prolonged periods of conflict and isolation may result in limited local expertise, resources, and infrastructure to support research activities. Researchers may need to adapt their methods and approaches to accommodate the local context.

Ethical considerations are similarly critical when conducting research in Afghanistan. Researchers need to be mindful of the complex and delicate nature of power dynamics, cultural sensitivities, and human rights issues in the country. This includes obtaining informed consent from participants, protecting their privacy and confidentiality, and ensuring that the research does not harm or exploit vulnerable populations. Researchers must carefully consider their

[2] Researchers in Afghanistan also need to navigate the suspicion and reluctance of the ruling regime to share information. The de facto authorities may view research activities, especially those funded by foreign organizations, with suspicion and perceive them as a threat to their authority. This can pose challenges in obtaining permission to access certain locations or collect data and may require researchers navigate bureaucratic processes with patience and perseverance.

research's potential consequences and impact on local communities and take appropriate measures to ensure their work is conducted ethically and responsibly.

To overcome the discussed challenges, researchers may need extensive pre-research planning, including thorough risk assessments and consultations with local experts. Researchers should also be flexible and adaptive in their research methods, considering the local context and adjusting their approaches accordingly.

To help you plan effectively for your research project and navigate these challenges, in the following passages, we explore some of the key discussions mentioned in the introduction above. First, we will discuss approaching social and cultural norms during your research project, including:

- **Building rapport** and establishing trust with the local population.
- Approaching **sensitive topics with caution** to avoid offending anyone.
- Being **considerate of low literacy** rates in rural areas.

Then, we will discuss safety and security considerations, such as:

- Acquiring **written permission** letters from local authorities.
- Adopting a **low-profile approach** to avoid unwanted attention.
- **Being considerate of changing dynamics** in the research area.
- **Staying updated on** security and safety information.

To better understand how to integrate these points into your research planning, we examine them in greater detail and provide contextual examples to illustrate how they can be incorporated into your research planning.

Navigating Social and Cultural Issues

1. Build rapport and trust with people

Encouraging people to participate in research can be challenging, especially if they are hesitant to discuss sensitive topics with strangers. To overcome this challenge, start by building trust and rapport with local people.

One way to build trust and rapport is to seek the support of the gatekeepers in the village or community. Gatekeepers such as community leaders, religious leaders, and elders are highly respected and trusted; if they vouch for you, the people will feel comfortable and share their thoughts and experiences. To do this, approach community leaders and religious figures before reaching out to individuals directly. Explain the purpose of your visit and ask for their assistance in identifying participants for your research/study.

Once you have secured support from the village/community gatekeepers, the second step is to engage with the local population (who are your potential research participants). When engaging with participants, there are several key considerations to remember.

- First and foremost, you should respect their vulnerabilities and build respectful relationships that avoid making false promises or creating unrealistic expectations. Building trust with local community elders and religious figures can help establish an environment of openness and mutual respect, encouraging people to engage with researchers.
- Another critical factor in building trust is clear communication. It would help if you were transparent about your research goals and aims, ensuring that the research process is fair, unbiased, and non-discriminatory. This can involve being clear about the potential benefits and limitations of participation and any potential harms.

By working with community and religious leaders, respecting participants' vulnerabilities, and communicating clearly, researchers can create a safe and supportive environment that encourages participation and fosters meaningful insights.

2. Approach sensitive topics with caution

Approach sensitive topics with caution when conducting research in Afghanistan. Cultural norms, religious beliefs, and diverse demographics must be considered, as questions related to religion or gender can cause discomfort. However, researchers should not be deterred but approach sensitive issues tactfully and in a culturally appropriate manner. Planning research such that men interview men and women interview women is one way to ensure cultural norms are respected. With the right approach, it is possible to research sensitive topics in Afghanistan without causing offense or harm.

3. Be considerate of low literacy rates

Your data collection tools should be easy to understand, have simple structures, and be available in the participants' language. Afghanistan has an estimate literacy rate of approximately 37%, which is extremely low.[3] Literacy rates are even lower among women in rural areas. This can pose a challenge when conducting research that requires written consent forms, questionnaires, or surveys.

To avoid excluding potential participants, you should try to accommodate illiterate individuals by providing oral explanations and re-wording questions in simpler formats. This is particularly important when conducting research in rural areas where literacy rates are especially low.

Safety and Security Considerations

Conducting research in Afghanistan is challenging due to the high-risk environments that you may encounter. Criminal actors and groups and other safety and security risks in and around the research location can pose a significant threat. These risks could include armed conflicts, terrorist attacks, kidnapping, theft, and other forms of violence.

To mitigate potential risks, thoroughly understand the area's security situation and the potential risks you and your participants may face. In other words, you need to conduct a comprehensive

[3] https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=AF

risk assessment and obtain up-to-date information on the security situation in the area. After studying the risks, consider mitigating measures to reduce the likelihood of harm to yourself and your participants. These measures could include working with a local security expert, hiring a security detail, avoiding high-risk areas, and obtaining appropriate permits and permissions to conduct research in the area.

Ignoring these risks and proceeding with fieldwork in an insecure location is not a wise decision. You should avoid taking unnecessary risks that could put your life and the lives of others in danger. You should always prioritize safety and security when conducting research in high-risk environments. It is possible that, in some instances, especially when the research topic is sensitive or culturally inappropriate, you could put yourself or participants at risk just by interacting, let alone conducting an interview or filling out a survey form.

While it is not possible to safeguard against all potential risks and harm, taking the following precautions can help mitigate some risks.

1. Coordinate and acquire written permission letters

As mentioned earlier in this chapter, the security situation in Afghanistan is uncertain and volatile. The DFA does not allow researchers to collect data without prior communication with their agencies. Sharing your research purpose and plan with the relevant DFA agency will help protect your research team from unnecessary investigations, interruptions, or risks. In most cases, when conducting fieldwork, you will need permission from security agencies of the DFA, such as the Ministry of Interior or the General Directorate of Intelligence.

The process of requesting permission for your research fieldwork is highly opaque. It is advisable to request permission to conduct your research from the relevant ministry/agency early on. It may take one to three months, or even longer, to receive confirmation from the agency you have contacted.

After obtaining permission, it is also advised to inform the local DFAs in the area where you plan to conduct the research, including relevant provincial offices and directorates. You can follow up with the communication directorate or regional/provincial offices of the appropriate ministry/agency.

Note that seeking permission from relevant DFA authorities does not guarantee that your research will be free from interference or scrutiny. Hence, consult experts to understand better potential sensitivities or risks associated with conducting research in a particular area or topic.

Conducting research in areas with uncertainties or potential risks requires careful planning, communication with relevant authorities, and situational awareness. Refer to the sample permission letter in Annex 2 as a guide but remember that your letter will depend on your research topic, relevant agency, and geographic focus.

2. Adopt a low-profile approach

Always adopt a low-profile approach when conducting surveys and assessments in Afghanistan. This means being mindful of your movements, behavior, language, clothing, and equipment. For example, avoid wearing flashy or expensive clothing and jewelry, which can attract unwanted attention. Additionally, use shared local taxis and minimize using smart mobile devices (or expensive ones) to avoid drawing attention to yourself.

When introducing yourself and the purpose of your research, use a narrative that does not attract suspicion. For example, a researcher studying healthcare practices in a rural village may introduce themselves as a researcher who wants to learn more about the community's healthcare needs and practices. By explaining their intentions clearly and honestly, the researcher can establish trust with the participants and reduce potential barriers to participation.

3. Consider the changing security and safety dynamics

When conducting research in Afghanistan, it is essential to understand the various security risks and safety concerns in different regions of the country. The security situation in the northern areas might differ from the southern regions. Before fieldwork, identify the targeted research area's main security concerns, trends, and actors.

To effectively identify security concerns, ask questions such as:

- What are the current security threats in the area?
- Who are the key actors involved in the security situation, such as government officials, local authorities, or armed groups?
- What are the recent trends in violence or conflict in the area?

Once the primary security concerns have been identified, establish context-specific security and safety protocols. These protocols may include measures such as developing evacuation plans or avoiding certain areas during specific times of the day. Clearly communicate these protocols to all team members and participants, ensuring everyone's safety and security throughout the research process.

4. Keep yourself updated on security and safety information

To ensure safety and security during fieldwork in Afghanistan, always stay informed about the latest security information. Conduct a thorough security assessment before starting your field work, and remember that security situations can change quickly. Communicate potential security risks to your team, analyze historical patterns, and practice responding in different situations.

Once you have assessed the security situation, review your research scope, plan, and questions to ensure they do not put you or your team at risk. Modify or remove any potentially tricky topics, questions, or procedures. By taking these steps, you can minimize risks and stay safe during your research in Afghanistan.

Note: We hope that the section on safety and security considerations for research in Afghanistan has provided you with valuable information regarding potential risks and context-

specific factors that should be taken into account. However, note that the information presented is not meant to be a comprehensive security or safety guideline for conducting research in Afghanistan or other volatile areas.

Undertaking research or fieldwork in an insecure and volatile area can pose significant risks, and it is highly recommended that you seek expert advice on your approach and how to navigate different security-related issues. It is essential to take all necessary precautions to ensure the safety and security of yourself and your team members or research participants.

Safety and security should always be top priorities when conducting research in challenging environments. You can help ensure a safe and successful research experience by seeking expert advice and taking necessary precautions.

Please see Annex 3 for a detailed risk assessment questionnaire to help you prepare for research fieldwork.

Key Points

In summary, the main takeaways from this chapter are:

Afghanistan's research environment is challenging due to limited information and ongoing violence.

- The research environment is characterized by inadequate local research capacity and considerable dependence on foreign sources.
- Certain groups of people may be inaccessible for interviews. Some topics may be off-limits for discussion or exploration, posing social dynamics researchers must carefully navigate.
- Conducting research in Afghanistan requires grappling with a ruling regime that is often reluctant to share information and may be suspicious of research activities.

Researchers must carefully consider where, when, and how to conduct research, considering the security situation, cultural norms and sensitivities, and potential risks.

- Measures to consider for navigating social and cultural norms include:
    - Building rapport and establishing trust with the local population.
    - Approaching sensitive topics with caution and tact.
    - Being considerate of low literacy rates in rural areas.
- Measures to consider for safety and security include:
    - Acquiring written permission letters from local authorities.
    - Adopting a low-profile approach to avoid unwanted attention.
    - Being considerate of changing dynamics in the research location.
    - Staying updated on security and safety information.

Checklist

When conducting research in challenging environments such as Afghanistan, you should feel confident about answering 'yes' to the following questions:

1	Have you included procedures in your research to facilitate trust-building with people?	☐
2	Have you reviewed your research scope, content, and questions for potential sensitivities?	☐
3	Have you acquired an authorization/permission letter from the DFA?	☐
4	Are your research questions simple and straight forward?	☐
5	Have you conducted a security assessment of the research locations?	☐
6	Have you coordinated with local authorities, leaders, or influential people?	☐
7	Is your team composition considerate of the local cultural values?	☐
8	Do you have data safety and security measures in place?	☐

Further Readings

- Security Guidelines for the Conduct of Research in Conflict Settings. Feinstein International Center, Tufts University: https://fic.tufts.edu/wp-content/uploads/Security-Guidelines-1.pdf
- Doing Research in Afghanistan: Advice from Experienced Researchers. Humanitarian Outcomes: https://www.humanitarianoutcomes.org/wp-content/uploads/2020/04/DOING-RESEARCH-IN-AFGHANISTAN.pdf
- Research in conflict settings: Methodological considerations, by the International Rescue Committee (IRC) (2014): https://www.rescue.org/sites/default/files/document/438/research-in-conflict-settings-methodological-considerations.pdf
- Conducting Research in Afghanistan: Some Ethical Considerations, by Anna Feuchtwang and Dr. Patricia Sellick (2016): https://journals.sagepub.com/doi/full/10.1177/1744987116650805
- Methodological Challenges in Conducting Research in Afghanistan: A Case Study by Ahmad Fawad Osmani (2019): https://doi.org/10.3126/jec.v21i1.26481

CHAPTER 4: MAINSTREAMING GENDER IN RESEARCH

Contents

This chapter provides guidance on integrating gender concepts into research design, implementation, analysis, and reporting. It includes the following:

- An overview of gender mainstreaming concepts in social research.
- Guiding principles for mainstreaming gender concepts in the research process, including:
    - Ensuring that research questions are formulated in a way that considers and incorporates gender-related concepts and perspectives.
    - Choosing research methods that are inclusive and sensitive to gender-related issues.
    - Forming research teams that represent both males and females.
    - Analyzing research data with a gender lens to identify and understand gender-related patterns, trends, and disparities that may emerge from the research findings.
    - Ensuring that research findings are reported and presented in a way that is mindful of gender differences.

After reviewing this chapter, readers will gain the skills to conduct research projects that integrate gender concepts into the research cycle. This includes being mindful of the social and cultural realities of countries such as Afghanistan and reporting research findings that take into consideration gender-related issues.

Mainstreaming Gender in Social Research

Mainstreaming gender in your research is not about conducting research focused on women but recognizing gender as a significant variable in social studies. Gender-inclusive research considers the similarities and differences between men's and women's experiences of social phenomena, takes into account their unique viewpoints, and gives equal value to each (Leduce, 2009). Conducting research that considers gender issues can provide accurate, contextual, and valuable findings, and the results are likely to be sustainable.

Women's experiences and contributions have traditionally remained invisible in social and natural sciences. It is important to remember that women constitute half of the population, and overlooking their experiences and points of view can lead to incomplete conclusions about social problems (Walsh et al., 2019).

In Afghanistan, mainstreaming gender into research can be challenging due to the restrictive policies of the DFA against women and girls and the traditional patriarchal culture. The combination of security concerns, cultural pressures, limited time, and other sensitivities makes it hard to ensure gender mainstreaming in research.

Mainstreaming gender into social research has inherent benefits, including:

> In the context of this research reference guide, the word 'gender' refers to the ways in which people are socially, culturally and historically categorised as 'girls' and 'boys', 'women' and 'men', and the effect this has on their everyday lives. A person's gender shapes their everyday life in terms of access to services, rights, privileges and roles in society, as well as how they understand themselves. Gender is therefore not a synonym for 'women', but looks at relations between women and men, girls and boys in every society, influencing how they are organised and how power and resources are distributed among their populations.
>
> Source: https://www.amrc.org.uk/pages/category/edi-resource-hub?Take=20

- **Enhancing understanding of the problem:** Gender-inclusive research does not necessarily change the research scope but provides new perspectives, raises further questions, and enriches the analysis tools to create a complete picture of the problem. Men and women have different roles, so their views on a problem can differ. By combining their diverse experiences and viewpoints, researchers can enhance their understanding of a problem.
- **Promoting sustainable results:** Gender-sensitive research highlighting the perspectives, contributions, and needs of both men and women can influence and contribute to gender-sensitive policies.

Integrating Gender into a Research Project

Integrating gender into social research involves incorporating gender dimensions and perspectives into all stages of the research study. In the upcoming sections, we will explore how you can incorporate gender into your research project by examining the below-listed research phases and providing contextual examples and scenarios.

1. Designing research questions
2. Choosing the methodology
3. Forming the research team
4. Analyzing the findings
5. Disseminating the results

1. Integrating gender into the design of the research project

Integrating gender perspectives in research is crucial in creating meaningful and impactful research that addresses gender disparities and inequalities. The first step in the research process is selecting a research topic and identifying research objectives that allow for integrating gender perspectives. Gender-inclusive research is participatory and considers the impact of the research topic on both men and women.

To develop gender-sensitive research questions, ask yourself the following questions:

- Who is currently affected by the issue?
- How does the issue affect men and women differently?
- How will men and women take action to address the issue? What are the differences in approach?
- What have previous research studies on this topic revealed?
- How were gender dynamics considered in previous research?
- What level of gender-disaggregated data is available on this topic?

Assessing the potential outcomes of your research questions is crucial before creating gender-related indicators to measure and track gender relations. These indicators can be qualitative and quantitative and should be tailored to your research type. To develop proper measuring indicators, consider the following:

- How are gender equality and equity defined in your field of study?
- What is the end goal of your research?
- What type of gender-disaggregated data is available - qualitative or quantitative?
- What type of data do you need to complete your research?
- What type of measurement is appropriate for your research?
- What measurement indicators have previously published research studies used?

By integrating gender perspectives, developing gender-related indicators, and assessing gender-disaggregated data, you can create more meaningful and impactful research that addresses gender disparities and inequalities.

2. Selecting a gender-sensitive research methodology

Choosing the appropriate methods for conducting research from a gender perspective is directly related to the research question formulation process. To be exact, you should design a research plan using techniques most applicable to your research questions and objectives. Failure to use

the correct methods for your research objectives could result in inaccurate or misleading research that may do more harm than good.

One particular area that requires attention is sampling, as it often under-represents women. For instance, when conducting household surveys, the head of the household is usually a male, making him the only information source. Hence, it is necessary to sample an equal number of participants from both genders and avoid sampling techniques that may exclude specific individuals or groups. Your sampling should include women, vulnerable groups, marginalized groups, religious and ethnic minorities, people with disabilities, etc.

Similarly, choosing an inclusive data collection approach for fieldwork is crucial. Data collection approaches vary significantly depending on your research scope, objectives, and type of questions. Here are some points to consider:

- Suppose you collect data on sensitive topics like gender-based violence. In that case, you must consider approaches and protocols to protect your interviewees from harm.
- When using focus group discussions, be careful about the approach. Sometimes, putting men and women together in a room can lead to inaccurate representation. Women (or men) may not be comfortable discussing issues in front of men due to the content of the discussion and cultural restraints.
- When men and women find it conducive to participate in a discussion, ensure that each group receives the proper representation. It is essential not to allow one group to dominate the discussions.
- Qualitative research is well-suited for gender-related topics because it is flexible and allows for nuanced approaches depending on the interview situation and subject.

In summary, regardless of the data collection approach you choose, ensure that you have protocols and trained researchers for data collection to protect the interviewees and collect accurate data.

The following are ways researchers can incorporate perspectives on gender in data collection:

If the data collection is qualitative:

- Select a diverse interview group sample to capture both men's and women's experiences.
- Take gender differences into account when structuring interview questions.
- Consider using same-sex focus group discussions, particularly when dealing with sensitive topics where women may feel more comfortable speaking without the presence of men.
- Pay close attention to gender roles and relationships in the community and how they may impact women's and men's experiences with the issue.
- Ensure the focus group moderator has received sufficient gender sensitivity training and recruit a female moderator for a woman-only focus group and vice versa.

If the data collection is quantitative:

- Define your survey sample to capture the diverse experiences of women, men, girls, and boys.
- Be aware that insufficient or nonrepresentative sampling can negatively impact research outcomes.

3. Form a gender-inclusive research team

When forming a research team, make sure to have a balanced representation of men and women. Also, consider diversity in other aspects such as age, ethnicity, language, and status. Your research team's diversity level can directly impact the quality of your data. Here is how:

- A diverse research team can **better reflect the characteristics and perspectives** of the population under study. For example, if your research involves studying a community with diverse demographics in terms of gender, age, ethnicity, language, and status, having team members who belong to those groups can facilitate rapport and trust-building with participants. This can lead to more accurate and comprehensive data, as participants may feel more comfortable sharing their experiences and insights with team members who they perceive as relatable and trustworthy.
- Different team members may **bring unique cultural, social, and contextual knowledge** to the research process. This can help in designing and implementing research protocols that are culturally appropriate, sensitive, and respectful toward the participants. For instance, in gender-sensitive studies like interviewing GBV survivors, having team members familiar with the participants' cultural nuances, social norms, and language preferences can enable more effective communication, minimize potential biases, and enhance the accuracy of data collected.
- A diverse team can also engage in reflexivity, which involves c**ritically reflecting on their perspectives, biases, and assumptions** throughout the research process. Team members from diverse backgrounds can offer different viewpoints, challenge each other's assumptions, and collectively work towards minimizing potential biases and enhancing the rigor of the research. This self-awareness and reflexivity can contribute to a more nuanced and balanced interpretation of the data, leading to higher data quality.

There are several key steps you can take to ensure gender inclusivity and diversity in your research team:

- **Be intentional in team formation:** When forming your research team, actively strive for diversity in terms of gender, age, ethnicity, language, and other relevant characteristics that are important for your research. Consider setting goals and targets for achieving a balanced representation of different groups in your team.
- **Promote inclusivity in recruitment and hiring:** Ensure that your recruitment and hiring processes are inclusive and actively seek candidates from diverse backgrounds. Advertise your research positions in diverse forums and platforms to attract a wide range of applicants. Avoid selection bias and focus on qualifications, skills, and experience when evaluating candidates.
- **Provide training and support:** Offer training and support to your team members to enhance their understanding of gender sensitivity, cultural awareness, and inclusivity. This can include providing resources, workshops, and seminars that address topics such

as gender dynamics, power dynamics, and unconscious biases. Ensure that team members are equipped with the necessary skills and knowledge to conduct research sensitively and inclusively.

- **Foster an inclusive team culture:** Create an inclusive team culture where all team members feel valued, respected, and included. Encourage open communication, mutual respect, and active engagement among team members. Foster an environment where diverse perspectives are welcomed and team members feel comfortable expressing their thoughts and opinions.
- **Foster reflexivity and self-awareness:** Encourage team members to reflect on their own perspectives, biases, and assumptions throughout the research process. Regularly discuss and reflect on potential biases, challenges, and opportunities related to gender inclusivity and diversity in the research. Foster a culture of continuous learning and improvement.
- **Collaborate with experts and local partners:** If your research involves studying a specific community or population, collaborate with experts and local partners with cultural and contextual knowledge. Experts and local partners can provide valuable insights and guidance on navigating sensitive topics related to gender, culture, and diversity. They can help ensure that your research is conducted inclusively and respectfully.

By actively taking these steps, you can create a gender-inclusive and diverse research team that is equipped to conduct research sensitive, respectful, and inclusive, leading to higher-quality data and more meaningful research outcomes. Promoting gender inclusivity and diversity is an ongoing process that requires continuous effort, reflection, and improvement.

4. Analyzing research data from a gender perspective

Considering gender perspectives in data analysis is crucial as it addresses gender biases, uncovers gender-related patterns and trends, enhances the relevance and applicability of research, informs policy and practice, and promotes social justice and equality. By actively examining the data from a gender perspective, researchers can identify gender-related patterns, trends, or differences that may impact research findings. This approach allows for a more comprehensive and nuanced understanding of gender dynamics, leading to more informed and meaningful research outcomes.

Here are some ways to apply a gender lens when analyzing data:

Look for gender-based patterns: You should examine the data for patterns that differ based on gender.

For example, when analyzing data on healthcare access in Afghanistan, you may need to examine women's access to healthcare facilities and how different it may or may not be in different regions compared to cultural barriers and availability of women-friendly health care facilities.

Consider gender roles and expectations: Consider how gender roles and expectations may influence the findings.

For example, when analyzing data on education in Afghanistan, you may want to study how cultural expectations around gender roles impact girls' access to education.

Look for gender-based disparities: Examine the data for disparities between men and women or other gender identities.

For instance, when analyzing data on economic development in Afghanistan, you may be interested in looking deeper into women's access to credit and financial resources and identifying any gender-based wealth gap.

Consider the intersection of gender with other social identities: Study how gender intersects with other social identities, such as race, ethnicity, religion, and socioeconomic status. This can help reveal the ways in which gender-based discrimination intersects with other forms of discrimination and impacts individuals' experiences.

Seek feedback from diverse perspectives: As a researcher, you should seek feedback from women and men to understand how the findings may impact them differently.

For example, you may want to consult with women's rights activists/organizations during the analysis process to understand how the findings may impact women.

By considering the above points while analyzing data, you can ensure that your research findings are accurate, authentic, and useful for developing programs and policies that benefit both men and women in Afghanistan.

5. Ensuring gender perspectives in presenting research findings

Gender mainstreaming in presenting or reporting research findings is important because it helps ensure that the perspectives of both women and men are adequately represented. By considering gender in the communication of research findings, you can promote inclusivity, avoid reinforcing gender biases, and contribute to a more equitable and balanced understanding of the research outcomes.

Fully reflect gender-related perspectives in the report: When developing your research report, ensure that you include both males and females and capture any differences in their views.

For example, if you conduct surveys, ensure that you have a sufficient representation of both male and female respondents and that their responses are analyzed and reported adequately to identify any gender-specific trends or patterns.

Highlight gender-related information: When sharing your research findings/report, highlight the gender-related implications.

For example, if your research shows that women are disproportionately affected by a particular issue, emphasize this point and provide recommendations for addressing it. Use data and evidence to support your claims and avoid making generalizations or assumptions based on gender stereotypes.

Use gender-inclusive language: When presenting research findings, use gender-inclusive language to avoid reinforcing gender stereotypes.

For example, use "he" / "she" to refer to hypothetical individuals.

Highlight disparities: When reporting and analyzing data, highlight gender-based disparities in the findings and make recommendations for addressing them.

For example, suppose the research findings indicate that women have less access to education or employment opportunities. In that case, the report should include recommendations for increasing women's access to these opportunities.

Provide gender-inclusive recommendations: Provide actionable recommendations based on gender-inclusive research findings.

For example, recommendations could include increasing access to education or employment opportunities for women/men or addressing gender-based violence through policy changes.

In summary, mainstreaming gender in all phases of a research project promotes inclusivity, avoids biases, and contributes to a more equitable and balanced understanding of the research outcomes. It ensures that gender is recognized as a relevant factor in research and that research findings reflect the diversity and complexity of gender identities and experiences. By actively considering gender perspectives throughout the research process, you can contribute to more inclusive, rigorous, and meaningful research outcomes.

Key Points

In summary, the main takeaways from this chapter are:

- Research considering gender issues will provide accurate, contextual, and valuable findings, and the results will likely be sustainable.
- Overlooking women's experiences and points of view leads to the wrong conclusion or at least an incomplete picture of the social problem.
- Mainstreaming gender in research means the integration of gender dimensions into every component of the research.

    - Your research questions should consider how the research topic affects men and women.
    - Consider gender aspects while designing your research methodology, i.e., how men respond to a specific question vs. women's response.
    - Draw a gender-inclusive sampling (i.e., an equal number of participants from both genders).
    - Avoid sampling techniques that may lead to the exclusion of specific individuals or groups.
    - Select a data collection approach in line with 'do no harm' principles.
    - Make sure to have trained researchers for the data collection to protect the interviewees and collect accurate data.
    - Include female researchers in your team because it facilitates women's participation, especially in a conservative and patriarchal context, and enriches the gathered data.
    - Your findings/report should reflect all gender-related perspectives.

Checklist

When designing research, you should feel confident about answering 'yes' to the following gender mainstreaming questions:

1	Have you considered gender-related perspectives while deciding on your research topic?	☐
2	Is your research questions gender-sensitive?	☐
3	Have you taken into account gender while deciding on a research method?	☐
4	Have you sampled men and women equally?	☐
5	Have you included marginalized groups?	☐
6	Have you recruited females in your research team (if you need a team)?	☐
7	Have you trained them on different methods to approach men and women?	☐
8	Have you considered gender-related dynamics in the field?	☐
9	Have you reviewed your data to be gender-inclusive?	☐
10	Do you have female analysts in your research team?	☐
11	Have you reviewed your report/findings for ethical and safety considerations?	☐
12	Have you decided on a gender-inclusive report presentation?	☐

Further Readings

- Gender and Conflict Analysis Toolkit, by United States Institute of Peace: https://www.usip.org/publications/2016/05/gender-and-conflict-analysis-toolkit
- Gender and Security Sector Reform Toolkit, by United Nations Development Programme: https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/gender-and-security-sector-reform-toolkit.html
- Gender-Based Violence Assessment Toolkit for Humanitarian Settings, by International Medical Corps: https://internationalmedicalcorps.org/resource/gender-based-violence-assessment-toolkit-for-humanitarian-settings
- A Guide to Gender Analysis Frameworks, by Oxfam: https://policy-practice.oxfam.org/resources/a-guide-to-gender-analysis-frameworks-620680/

CHAPTER 5: ETHICAL CONSIDERATIONS IN RESEARCH

Contents

This chapter provides an overview of the ethical considerations that researchers need to keep in mind when designing, implementing, and reporting on social research topics. The chapter covers the following topics:

- Important ethical principles such as informed consent, confidentiality, and privacy, respect for persons, beneficence, and justice.
- The responsibility of researchers in safeguarding vulnerable populations, including women, children, and youth, who may be at risk of harm during the research process.
- Ethical considerations related to handling research data, including data collection, storage, analysis, and sharing.
- Summary of the overarching principle of 'do no harm' in social research.

Overall, readers who go through this chapter will be able to identify and understand the ethical considerations critical in conducting social research and apply these principles in their research practices to ensure ethical conduct and protect the rights and welfare of research participants.

Overview of Ethical Principles in Social Research

Ethics in research refers to the set of principles and guidelines that guide researchers in conducting their studies with integrity and ensuring that the rights and welfare of the participants are protected. Ethical considerations in research involve informed consent, confidentiality, privacy, respect for persons, beneficence, and justice.

Researchers have a responsibility to ensure that their studies are conducted in an ethical manner and that they do not harm the participants or violate their rights. Maintaining the credibility and validity of research requires ethical considerations that respect the participants' dignity. This includes adhering to ethical, cultural, and traditional values while allowing participants to make informed decisions freely without harm.

Key principles of ethics in social research are:

- **Informed Consent**: Informed consent is a critical component of ethical, social research. Researchers must obtain the informed consent of participants before they participate in the study. This involves providing participants with clear and detailed information about the study, including the purpose, procedures, risks, benefits, and any alternatives, and allowing them to ask questions and make an informed decision about whether or not to participate. Informed consent must be voluntary, and participants have the right to withdraw from the study at any time.
- **Confidentiality and Privacy:** Social research often involves the collection of sensitive data, such as personal information, medical history, or social behavior. Therefore, researchers must take appropriate measures to ensure the confidentiality and privacy of participants. This includes protecting participants' personal information from unauthorized access or disclosure and informing participants about how their data will be used and shared.
- **Respect for Persons:** Respect for persons is the ethical principle that requires researchers to treat participants with respect and dignity. This involves treating participants as autonomous individuals with the right to make decisions for themselves and ensuring they are not coerced or manipulated into participating in the study. Researchers must also ensure that vulnerable populations, such as children, the elderly, or individuals with disabilities, are protected from harm and have the same rights as other participants.
- **Do no harm:** In the context of research, the principle of "do no harm" refers to the ethical obligation of researchers to ensure that their studies are conducted to minimize the risk of harm to participants. This principle is a fundamental component of research ethics and is often upheld through informed consent, rigorous study design, careful risk assessment, and ongoing monitoring of participants' well-being throughout the research process.
- **Justice:** Justice is an ethical principle that requires researchers to ensure that the study's benefits (i.e., participation incentive) and burdens are distributed fairly among participants. This means that researchers must ensure that participants are not unfairly excluded from the study and that the benefits of the study are shared equally among all participants.

In the following, we discuss each of the above topics about ethics in research in greater detail:

1. Ethical considerations - obtaining informed consent

When obtaining informed consent, take the following ethical considerations into account.

Language and literacy: Ensure that the language and level of detail provided in the informed consent process are appropriate for the participants. If the participants speak a language other than the language in which the consent form is written, provide a translated consent form or a qualified interpreter to help the participants understand the information.

Voluntariness: Ensure that the participants' decision to participate in the study is voluntary and not influenced by coercion, pressure, or undue influence. Participants should have the option to decline participation without any negative consequences or repercussions.

Capacity: Ensure that the participants have the capacity to give informed consent. Participants with mental or cognitive disabilities may have limited capacity to understand the study's purpose and procedures, and you must obtain consent from a legally authorized representative or guardian.

Timing: Ensure that the informed consent process occurs before any study-related procedures, interventions, or data collection. Participants must have enough time to consider their decision to participate, ask questions, and make an informed decision.

Confidentiality: Ensure that the participants' privacy and confidentiality are protected during the informed consent process. Participants should be informed about how their personal information will be used and shared, and appropriate measures should be taken to protect their data from unauthorized access or disclosure.

Documentation: Document the informed consent process, including the information provided to participants, the participants' understanding of the study, and their voluntary agreement to participate. This documentation should be kept confidential and stored securely.

To draft a clear and comprehensive consent form, you can refer to a sample consent letter provided in Annex 1.

2. Ethical considerations – privacy and confidentiality

Confidentiality and privacy are essential ethical considerations in social research. Confidentiality refers to the researcher's responsibility to protect the information obtained from participants, whereas privacy refers to participants' right to control their personal information. Here are some key considerations related to confidentiality and privacy in social research:

Data Collection: When collecting data, ensure that personal information is collected in a way that protects participants' privacy.

For example, avoid collecting unnecessary personal information that could identify participants, such as full names, social security numbers, or home addresses.

Data Storage: Ensure that data is stored securely and only accessible by authorized personnel. This means taking appropriate measures to protect data from unauthorized access or disclosure, such as storing data on password-protected computers or servers.

Data Sharing: Obtain participants' consent before sharing their personal information with third parties. If data is shared, you should ensure that it is done in a way that protects participants' privacy and confidentiality, such as de-identifying the data or using a secure data transfer method.

Anonymity: Consider offering participants the option of remaining anonymous. If participants are anonymous, their personal information is not collected, and it is impossible to link their responses to their identity.

Confidentiality agreements: Ask participants to sign confidentiality agreements promising not to disclose any information they may learn during the course of the research. These agreements help ensure that participants' personal information is kept confidential and is not disclosed to unauthorized parties.

Data destruction: Have a plan to secure personal data once the study is complete. This could involve deleting digital data and shredding physical records safely and appropriately.

3. Ethical consideration – respect for persons

Respect for persons is a fundamental ethical principle in social research that emphasizes the importance of recognizing the autonomy and dignity of individuals. This principle involves treating participants as individuals who have the right to make their own decisions and to have those decisions respected. There are four key components of respect for persons in social research:

Component 1 - Protection of vulnerable populations: Respect for persons requires special consideration for vulnerable populations, such as children, older people, and individuals with mental or cognitive disabilities. These populations may have limited decision-making capacity or may be susceptible to coercion, pressure, or undue influence. It would help if you took appropriate measures to protect these populations, such as obtaining consent from legally authorized representatives or guardians and ensuring that participants understand the research study to the best of their abilities.

Component 2 - Treating participants with dignity and respect: You must treat participants with dignity and respect, regardless of their age, gender, race, or cultural background. This includes being courteous, professional, and sensitive to participants' needs.

Component 3 - Avoid exploitation: You must avoid exploiting participants for personal gain or benefit. This includes avoiding offering coercive incentives that could influence participants' decision to participate.

Component 4 - Providing feedback: If feasible and appropriate, you should provide participants with feedback on the study results. This can help to enhance participants' sense of autonomy and respect.

4. Ethical considerations – Do no harm

The "do no harm" principle is a fundamental ethical principle in research that requires researchers to prioritize study participants' safety, wellbeing, and dignity. The principle is rooted in the idea that research has the potential to cause harm and that researchers are responsible for minimizing this harm and protecting participants from unnecessary risks.

The "do no harm" principle is enshrined in various codes of ethics and guidelines for research involving human subjects. For example, the Belmont Report, a seminal document on research ethics, identifies beneficence (maximizing benefits and minimizing harm) and non-maleficence (avoiding harm) as two of its three ethical principles.

To uphold the "do no harm" principle in research, researchers must take a number of steps to ensure that their study design, methods, and procedures are safe and ethical. Some examples of these steps include:

- Conducting a risk-benefit analysis to identify potential harms and benefits of the study and ensuring that the benefits outweigh the risks.
- Obtaining informed consent from participants, involves providing clear and accurate information about the study, its risks and benefits, and the participant's rights and responsibilities.
- Protecting participant confidentiality and privacy, including ensuring that their personal information is kept secure and not shared without their consent.
- Minimizing risks of harm to participants by using appropriate research methods, such as non-invasive procedures, and minimizing physical or psychological discomfort.
- Providing participants with appropriate support and care, such as access to medical treatment or counseling services if needed.
- Monitoring the study closely to identify any potential harms that may arise and taking action to mitigate them as quickly as possible.

5. Ethical consideration – Justice

The ethical principle of justice plays a critical role in social research. Justice refers to fairness, equity, and the equitable distribution of benefits and burdens in research. In social research, this principle emphasizes the need to ensure that the selection of research participants, the conduct of the research, and the distribution of research benefits are fair and equitable.

One key aspect of justice in social research is the **fair selection of research participants**. Researchers must ensure that recruiting and including participants is unbiased and does not discriminate against any particular group or population. This includes avoiding discriminatory practices based on race, gender, ethnicity, religion, socioeconomic status, or other protected characteristics. Researchers should strive to include diverse and representative samples to ensure that research findings apply to the broader population and to avoid perpetuating existing social inequalities.

Another dimension of justice in social research **is the fair treatment of research participants**. This includes respecting participants' autonomy, ensuring they are fully informed about the research and its potential risks and benefits, and obtaining informed consent. Researchers must also protect participants' privacy and confidentiality and take appropriate measures to minimize any potential harm or discomfort from participating in the research.

Additionally, the principle of justice extends to the **equitable distribution of research benefits**. Researchers are responsible for ensuring that the benefits derived from their research are shared fairly among participants and stakeholders. This may include providing feedback to participants, offering compensation or incentives, and disseminating research findings in a manner that is accessible and beneficial to the communities or populations being studied.

Research Ethics and Vulnerability

The concept of research ethics is closely linked to the notion of vulnerability, particularly for vulnerable populations, because vulnerable populations require additional safeguards to ensure that they are not at increased risk of harm and that they are not unfairly burdened or excluded from research opportunities. As such, to safeguard vulnerable populations from unethical research practices, the Belmont[4] report was created to layout fundamental ethical principles for research involving human subjects. The Belmont report defines vulnerable populations as those who are at risk of psychological, physical, legal, social, and economic harm.

It is noteworthy that vulnerabilities can manifest in various forms in research, and addressing them all is beyond the scope of this guide. However, in the context of research involving survivors of gender-based violence, children, and youth, we have identified some key considerations that should be taken into account to protect participants from harm and uphold ethical standards.

1. Research with survivors of gender-based violence

Sharing information about GBV and sexual violence can be emotionally challenging for survivors who may be asked to describe traumatic experiences. To ensure the safety and ethical considerations of interviewing GBV survivors, consider the following recommendations[5]:

- Information gathering should be conducted in a manner that poses the least amount of risk to respondents while building on current experience and good practice.
- Basic care and support for survivors/victims must be available locally before commencing any activity involving individuals disclosing information about their experiences of violence.
- The safety and security of all involved in gathering information about GBV must be continuously monitored in emergency settings.
- Confidentiality must be maintained for individuals who provide information about GBV.
- Consent must be obtained from anyone providing information about GBV.

[4] https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html

[5] World Health Organization (WHO), http://apps.who.int/iris/bitstream/handle/10665/43709/9789241595681_eng.pdf;jsessionid=33EF9E85EA89834575028E554307B49F?sequence=1)

- All members of the data collection team should be carefully selected and receive relevant and specialized training and ongoing support.
- Additional safeguards must be in place if children (i.e., those under 18 years of age) are the subject of information gathering.

2. Research activity involving children and young people

Research on children and young people is essential for understanding social life, as it allows us to hear their unique perspectives on the world. However, conducting research with children poses its own set of challenges, such as the risk of retribution or stigmatization. For example, if a child reveals information about their family or community that is seen as sensitive or controversial, they may face retaliation or negative consequences from individuals or groups who do not approve of the information being shared. Similarly, if a child participates in a study on a sensitive topic, such as mental health or substance abuse, they may be stigmatized or judged negatively by their peers or community members who learn about their participation in the research.

These risks can be addressed by taking steps to protect the child's confidentiality and privacy, obtaining informed consent, and using alternative data collection methods that minimize the risk of disclosure. The following ethical guidelines[6] should be followed when collecting primary data from children and young people:

- Ensure that children are aware of their rights and can make a genuine choice about participating in a study.
- Provide clear information about the research and how it will be used.
- Demonstrate respect for children's views and approach them in a way that is comfortable for them.
- Take time to build trust with children before asking questions, using active games, storytelling, songs, and creative approaches.
- Offer children choices about the interview type, such as whether they want to be interviewed alone or with a friend, by an adult or a child, by a man or a woman, etc.
- Ask children about what time and place would be best for the interview and consider focus group discussions as a comfortable way to discuss sensitive issues.
- Work with boys and girls separately.
- Include questions about what might make things better for children facing the problems being investigated, as they are not just victims.
- Validate the data at the end of the interview by asking the child or group to check a verbal summary of what they have said.
- Provide support to children with communication difficulties, such as a skilled helper, to enable them to participate in the research and tell their stories without outside pressure.

To ensure that research is conducted ethically, it is crucial to consider the concept of vulnerability and the associated risks for vulnerable populations. While the specific topics within research ethics may vary depending on the type of research, location, and population under study, it is prudent to review and check research planning, content, and methodology with subject matter experts to ensure compliance with ethical considerations.

[6] Source: Save the Children (https://resourcecentre.savethechildren.net/pdf/2437.pdf/)

In addition to considering ethical issues related to your research participants, it is also essential to prioritize the ethical considerations and attention required to secure and safeguard research data. This involves taking steps to protect the confidentiality and privacy of research participants and ensuring that data is stored securely and only accessible to authorized personnel. Failing to prioritize data security and confidentiality can harm the participants and undermine the integrity and validity of the research findings.

Ethical Considerations in Safety and Security of Research Data

Research data refers to the information collected or generated during a research study. It can take various forms, including numerical, textual, audio, or visual data, and can be collected through a variety of methods such as surveys, interviews, experiments, observations, or secondary sources. Research data is used to support the research findings and conclusions, and it is typically analyzed and interpreted to draw conclusions and make recommendations.

In research, the collection of sensitive data is more common than one might think, involving information that, if mishandled, could pose risks or negative outcomes for research participants or others. This can include data related to personal health information, criminal records, financial information, etc. Given the potential harm that can arise from mishandling sensitive research data, it requires additional safeguards to protect the privacy and confidentiality of research participants.

You should always abide by ethical rules to sure that the privacy and rights of individuals or groups are respected and protected, especially when handling research data (and more so sensitive data). Failure to comply with ethical standards can lead to negative consequences such as harm to participants, loss of trust, legal action, or damage to the reputation of the researcher or the institution.

Following are some examples of how you can consider ethics when securing research data:

1. Keep research data confidential

Ensure that data collected from participants is kept confidential and anonymous. Anonymity means that the participant's identity is not known to the researcher or anyone else, while confidentiality means that the researcher knows the participant's identity but agrees not to disclose it to anyone else. Take these measures to secure and protect the data:

- **Encryption:** Use encryption to protect sensitive data. Encryption is the process of converting data into a code or a cipher, making it difficult for unauthorized individuals to access or read the information. (Consult your data expert for applying this security measure when dealing with sensitive data as it requires technical expertise.)
- **Secure storage:** Store research data in a secure location, such as a password-protected server or a locked cabinet, to prevent unauthorized access.

- **Pseudonyms:** Use pseudonyms or other anonymization techniques to protect the identities of research participants. This can involve assigning participants unique identification numbers instead of using their names.
- **Limited access:** Limit access to research data only to authorized personnel who have a legitimate need to access the data.
- **Data sharing agreements**: Develop data sharing agreements that specify how the data will be used, who will have access to it, and what measures will be taken to protect the data.
- **Regular backups:** Regularly backup research data to ensure that it is not lost or accidentally deleted.
- **Data destruction:** Develop a plan for the secure destruction of research data once it is no longer needed. This can involve shredding paper documents or securely deleting digital files.

2. Minimize potential harm

To minimize harm when collecting or using data, you should consider the potential emotional or psychological impact that the data may have on participants. If the research involves sensitive topics such as trauma or abuse, you should provide adequate support and resources for participants who may experience distress, such as counseling or referrals to appropriate support services.

- **Identify potential risks and minimize harm** to participants by ensuring that sensitive data is handled with care.
- **Provide adequate support** and resources for participants who may experience distress, particularly in studies involving sensitive topics.
- Ensure that all **data is securely stored** and destroyed or archived after the research is completed to prevent potential harm that may arise from data breaches or unauthorized access.
- **Inform participants** of their **right to withdraw** from the study at any time and provide them with contact information for any questions or concerns they may have.

3. Be careful when sharing data

When you want to share sensitive data with other researchers, organizations, or institutions, you must obtain consent from your research participants and ensure that the data is anonymized and securely transmitted. You should clearly also explain to participants the purpose and scope of data sharing and obtain their consent accordingly.

In conclusion, ethical considerations in research for securing data are crucial to ensure that the privacy and rights of participants are protected. As a researcher, you must be transparent, respectful, and accountable when handling sensitive data and should seek guidance from relevant ethical guidelines and institutional review boards.

Key Points

In summary, the main takeaways from this chapter are:

- Always take the 'informed consent' of your respondents before conducting your survey/interview.
- Ensure that your respondents fully know your research's scope, goals, context, and potential use.
- If needed, provide additional details to your respondents to help them decide on their participation.
- Make sure to cross-check and apply the 'do no harm' principles in your research design, data collection, and analysis.
- Always keep your research data (respondents' details) confidential and safe.
- Ensure your data collection approach aligns with the population's cultural and traditional values.
- Always consider professional competence, integrity, professional responsibility, and respect for people's rights.
- When conducting research with vulnerable and minority groups, review your questions and research approach to align with recommended ethical protocols.
- When conducting research with GBV survivors, reviewing your research approach/questions is essential to ensure they are sensitive to the participants. Having your research protocols, questions, and procedures reviewed by an expert in that area is highly recommended.
- When conducting interviews with children, ensure all your research protocols and approaches align with accepted ethics and guidelines for interviewing children.

Checklist

When reviewing your research for ethical considerations, you should feel confident about answering 'yes' to the following questions:

1	Have you reviewed your research design and content for cultural sensitivities and ethical considerations?	☐
2	Have you put in place confidentiality and data safety measures?	☐
3	Do you have a written 'informed consent' forms/letters ready to be used by respondents?	☐
4	Have you trained your researchers on key principles of ethics?	☐
5	Have you reviewed your research team for 'do no harm' principles?	☐
6	Have you revised your research question and removed all sensitive questions, wording, and information?	☐
7	If your research requires ethical/cultural approval by a review board if yes, has the board approved it?	☐
8	If your research is with vulnerable groups – do you have all the necessary measures according to the ethical principles?	☐
9	Is your research team trained to interview vulnerable groups?	☐
10	If your research is with GBV survivors, do you have all the necessary measures according to the ethical principles?	☐
11	Is your team experienced and trained to interview GBV survivors?	☐
12	If you are conducting interviews with children – do you have all the necessary measures according to the ethical principles?	☐
13	Is your research team trained to interview children?	☐

Further Readings

- Responsible Conduct of Research by Adil E. Shamoo and David B. Resnik. Available for free download at https://www.elsevier.com/books/responsible-conduct-of-research/shamoo/9780120884837
- Ethics in Qualitative Research by Martyn Hammersley. Available for free download at https://journals.sagepub.com/doi/pdf/10.1177/1468794107085301
- Ethical Considerations in Research with Refugee and Immigrant Youth: A Review of Literature by Yudit Namer and Wendy L. Haight. Available for free download at https://www.tandfonline.com/doi/full/10.1080/1369183X.2016.1196934
- The Ethics of Research on Violence Against Women: An Overview of Principles and Practice by Sarah Bott and Charlotte Watts. Available for free download at https://journals.sagepub.com/doi/full/10.1177/1077801206286367
- Ethics in Social Science Research: Becoming Culturally Responsive by Donna M. Mertens and Juliet A. Amador. Available for free download at https://journals.sagepub.com/doi/pdf/10.1177/1529100610381103
- Interviewing Children and Young People for Research by Cathy Sharp and Linda Paine. Available for free download at https://core.ac.uk/download/pdf/5116349.pdf

CHAPTER 6: GETTING STARTED WITH YOUR RESEARCH PROJECT

Contents

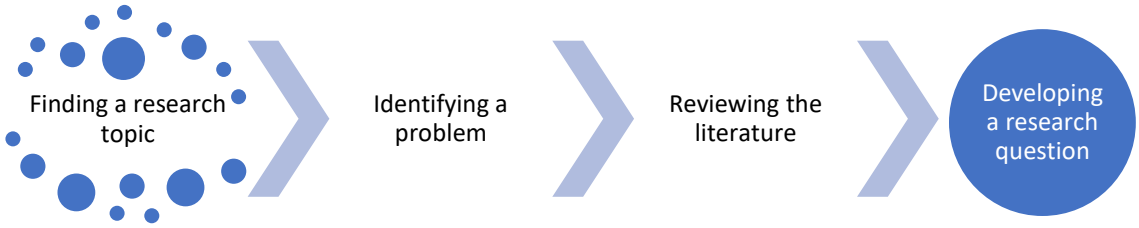
This chapter aims to provide readers with practical guidance and tools to confidently embark on their research journey, from identifying a research topic to developing research questions. The content specifically discusses:

- Starting your research project.
- Identifying a research topic.
- Conducting a literature review.
- Writing a problem statement.
- Developing good research questions.
- Overview of funded and non-funded research.

After reading this chapter, readers will be equipped with the skills to effectively start their own research projects, including narrowing down their research interests, drafting research questions, reviewing relevant literature, writing a problem statement, and kickstarting funded research projects/assignments.

Starting Your Research Project

Initiating a research project requires thoughtful consideration of the topic, irrespective of its intended purpose. As such, we will start by discussing effective strategies for identifying a research topic. We will then delve into the meticulous process of identifying a research problem, guide you in conducting a comprehensive literature review to establish a solid foundation for your study and explore techniques for formulating precise and relevant research questions.



1. Finding a research topic

When starting a research project, it can be overwhelming to know where to begin. Usually, the process starts with an idea, a social problem, or a phenomenon that you find interesting. Do not worry if it is still broad. There are several ways to find topics or subjects to research:

- **Personal interests:** Start by considering topics that you are interested in or passionate about. This can be a good starting point for identifying potential research areas.
- **Literature review:** Conducting a literature review can help identify gaps or areas where further research is needed. Look for recent articles or studies in your field of interest and identify areas that need further investigation.
- **Consult with experts:** Speak with experts in your field or area of interest to identify research areas that are currently under-explored or in need of further investigation.
- **Professional associations and conferences:** Attend professional conferences or join a relevant professional association to stay up to date on current research and identify potential research topics.
- **Current events:** Pay attention to current events or issues in your community or field of interest and consider conducting research related to these issues.
- **Collaborate with others:** Collaborate with colleagues, mentors, or other researchers to identify potential research topics and areas of interest.

Overall, keep an open mind and stay curious about the world around you. By exploring your interests and staying up to date on current research, you can identify meaningful research topics that have the potential to make a significant impact.

2. Identifying a problem

Identifying a problem or issue is a crucial aspect of selecting a research topic. It helps to ensure that the research is relevant, meaningful and has the potential to contribute to existing knowledge. Without a clear problem or issue, the research may lack direction and fail to address important gaps in the current understanding of a particular subject.

One approach to identifying a problem or issue is to conduct a preliminary review of the existing literature to identify gaps in knowledge or areas that require further investigation. This can involve reading relevant academic articles, reports, or books to comprehensively understand the current state of knowledge on a particular topic.

Another approach is to consider the broader social or political context in which the research will be conducted. This may involve identifying key challenges, controversies, or debates within a particular field or community that require further investigation. Additionally, researchers may draw on their personal or professional experiences to identify problems or issues they are particularly interested in exploring.

Regardless of the approach, ensure the research problem or issue is clearly defined and aligned with the objectives. This can involve developing research questions or hypotheses that are focused, specific, and achievable within the scope of the research project. Ultimately, a well-defined research problem or issue is critical to the research project's success and can help ensure that the research has a meaningful impact on the field of study.

3. Reviewing the literature

The next step after identifying a research topic is to conduct a literature review to better understand the existing research on the subject. This step involves searching for and reviewing academic and other relevant publications, such as books, reports, and articles, that have already been written on the topic.

The literature review aims to identify the current state of knowledge on the topic, identify any gaps in the literature, and determine how your research can contribute to the existing body of knowledge. It can also help refine your research question and determine the most appropriate research methods.

Keep the listed questions in mind when reviewing the literature

- What is already known about this area?
- What concepts and theories are relevant to this area?
- What research methods and research strategies have been employed in studying this area?
- Are there any significant controversies?
- Are there any inconsistencies in findings relating to this area?
- Are there any unanswered research questions in this area?

When conducting a literature review in a country like Afghanistan, be mindful of the following points:

Access: The first challenge in conducting a literature review is access to sources. The sources may be restricted or censored in some cases, and accessing them may require special permissions or

connections. You should be aware of the risks of accessing certain sources and take the necessary precautions.

Cultural sensitivities: Be mindful of cultural sensitivities and taboos in the country, particularly concerning topics such as gender or politics. In Afghanistan, discussing gender-related issues may be taboo in some communities, and political discussions may also be sensitive. As such, treat each on a case-by-case approach and identify sources from which you can acquire credible information, taking into account the cultural sensitivities of the specific topic you are studying.

Conducting a literature review in Afghanistan also requires high sensitivity and awareness of cultural and political dynamics. It would help if you were prepared to navigate challenges related to access, language, bias, and safety to ensure the integrity of your research.

One of the main challenges to conducting a literature review in Afghanistan is limited access to credible sources. Let us illustrate the methods you would use to overcome access issues when conducting a study on the effects of conflict on women's health in Afghanistan:

Consult with local experts: You can seek out subject experts in Afghanistan, such as academics, health practitioners, or NGO workers, and ask for their insights and experiences related to the topic. You can also ask for any relevant reports or publications that they might have available.

Visit local libraries: You can visit local libraries or research centers in Afghanistan and search for relevant books, journals, and other publications that might not be available online. For example, you can visit the public library in Kabul or the Afghanistan Centre at Kabul University (ACKU). There, you can seek assistance from the librarians or staff in locating materials related to the topic.

Attend conferences or workshops: You can attend conferences or workshops (either in-person or online) related to women's health and conflict in Afghanistan, where you can network with experts and gain access to relevant publications and reports.

Conduct interviews: You can conduct interviews or focus groups with women affected by conflict, health practitioners, or NGO workers. This can provide first-hand information on the effects of conflict on women's health in Afghanistan.

In some cases, even if the information is available, there is a high chance that it will be relatively old and lack application to the current times. In such cases, you can do the following:

- Expand the scope of your review and use non-peer-reviewed articles and news reports.
- You can also search for relevant videos and audio (i.e., YouTube).

Getting the most out of your reading involves developing active and critical reading skills. When you are reading the existing literature, try to do the following.

Review books and articles: Read books or articles known to you or recommended by others to you related to your research questions.

Take notes: Always take extended notes and keep them in a proper format based on your literature.

Make a list of keywords: Take note of the keywords in your literature.

Conduct online search: Conduct online research related to your study using either Google or other search databases.

Cite references: Note links and references of the materials you read and present them along with your research.

Check the credibility of your sources: Make sure to check the credibility, relevancy, and publishing time of the materials you read.

In reviewing the literature, you should do more than summarize what you have read. Ask yourself the following critical questions while reading documents.

- How does the item relate to others you have read?
- Are there any apparent strengths and weaknesses in methodology?
- What theoretical ideas have influenced the item? - Referring to the underlying theoretical concepts that have informed the development of that item.
- What are the implications of the author's ideas or findings? What was the author's objective in conducting the research?
- What are the main conclusions?
- What are the author's assumptions?

Remember that reading the literature is not something you should stop doing once you begin designing your research. You should continue your search for and read relevant literature throughout your study (Kothari, 2004).

4. Developing research questions

After identifying the research problem and reviewing relevant literature, it is time to write a problem statement outlining your research's structure. Consider the following questions when drafting your problem statement:

- What is the problem?
- How does it affect people or society?
- Why should you explore it?
- Ultimately, how will your research help? (i.e., "so what?")

By following these steps, you will be well on your way to defining a research problem that is specific, relevant, and achievable within the resources you have available. Remember to be

flexible and adapt your approach as necessary based on the findings and challenges you encounter during the research process.

Once you have drafted your research problem, it is time to think about writing the research question. This process will further narrow your research interest and tell you precisely what you want. Your research question should be based on the previously identified research problem statement. It should help you gather the information you need to answer the problem you posed. Your research question should have the structure, depth, and complexity to merit an investigation, argument, and later analysis and write-up.

Here are some key points to keep in mind when differentiating between good and bad research questions:

Good research questions:	**Bad research questions:**
• Are specific and focused. • Address an important issue or problem. • Are answerable through empirical research. • Are original or add to existing knowledge. • Have clear and defined concepts. • Are grounded in theory. • Are feasible and realistic given available resources. • Lead to meaningful results. • Are ethical and respectful of research participants.	• Are vague or overly broad. • Lack focus or direction. • Cannot be answered through empirical research. • Are too simplistic or already well-known. • Use ambiguous or undefined concepts. • Lack theoretical grounding. • Are not feasible or realistic given available resources. • Are trivial or insignificant. • Are unethical or disrespectful of research participants.

Examples of good and bad research questions:

Well-formulated research question: What are the barriers to accessing justice for Afghan women who are victims of domestic violence in Kabul? This research question is specific, and focused, and highlights the aspect of justice that the research aims to investigate.	**Poorly formulated research question:** How can justice be achieved in Afghanistan? This research question is too broad and vague, and it does not specify what aspect of justice in Afghanistan the research aims to investigate.
Well-formulated research question: How do social and cultural norms impact women's access to education in rural Afghanistan? This research question is specific, and focused, and highlights the aspect of women's status in Afghanistan that the research aims to investigate.	**Poorly formulated research question:** What is the status of women in Afghanistan? This research question is too general and does not provide a specific aspect of women's status in Afghanistan to be investigated.
Well-formulated research question: How has foreign aid influenced the effectiveness of the justice system in Afghanistan, particularly	**Poorly formulated research question:** What is the impact of foreign aid on justice in Afghanistan?

in addressing gender-based violence cases? This research question is specific, and focused, and highlights the aspect of justice in Afghanistan that the research aims to investigate, specifically related to gender-based violence cases.	This research question is too broad and does not specify which aspect of justice in Afghanistan the research aims to investigate.

Overall, good research questions are clear, specific, and relevant, while bad research questions are vague, overly simplistic, or lack direction. A good research question should be answerable through empirical research and should lead to meaningful and significant results that add to existing knowledge. It should also be ethical and respectful of research participants.

Example 1: A research topic on women's access to justice in Afghanistan.

The research problem is that Afghan women face numerous barriers to accessing justice, including discrimination, social norms, cultural beliefs, and lack of legal awareness.

To identify the knowledge gap or problem, we can review the existing literature on women's access to justice in Afghanistan. A quick review of the literature reveals that most studies have focused on identifying the barriers and challenges faced by Afghan women in accessing justice. However, there is limited research on the effectiveness of existing initiatives and interventions aimed at improving women's access to justice in Afghanistan.
Based on this knowledge gap, we can formulate the following research questions:

- What are the existing initiatives and interventions aimed at improving women's access to justice in Afghanistan?
- How effective have these initiatives and interventions been in improving women's access to justice?
- What are the key challenges and barriers that prevent Afghan women from accessing justice, and how can these be addressed?

These research questions will help us to better understand the effectiveness of existing initiatives and interventions aimed at improving women's access to justice in Afghanistan and identify areas where further interventions may be needed.

Example 2: A research topic on women's role in peacebuilding in Afghanistan.

To start thinking about the research problem consider the context and current situation. Afghanistan has experienced several decades of conflict, and peacebuilding efforts have been ongoing for years. However, women's participation in peacebuilding has been limited, and their roles and contributions have often been overlooked or marginalized. Therefore, a potential research problem could be exploring the role of women in peacebuilding in Afghanistan.

To identify the knowledge gap, we need to consider what research has been done so far on this topic. A literature review could reveal that some studies have focused on women's participation in peace negotiations, but there is limited research on women's roles in

peacebuilding activities beyond negotiations, such as community-based peacebuilding efforts. Additionally, there may be little research on the experiences and perspectives of Afghan women involved in peacebuilding initiatives. Therefore, the knowledge gap could be the limited understanding of Afghan women's participation in peacebuilding and their contributions to sustainable peace.

Based on the research problem and knowledge gap, potential research questions could include:

- What roles have Afghan women played in peacebuilding efforts, particularly in community-based initiatives?
- What challenges do Afghan women face in participating in peacebuilding efforts, and how can these challenges be addressed?
- How can the meaningful participation of Afghan women in peacebuilding efforts be facilitated and supported?
- What impact does women's participation have on the effectiveness and sustainability of peacebuilding initiatives in Afghanistan?

In the preceding passages, we examined a research cycle that involves identifying a research topic, problem, reviewing the literature, and developing research questions. However, note that this sequence may not always be followed. In many instances, particularly in professional and academic research projects, problems are already identified, or a research scope is provided to the researcher. In the below section, we will discuss this topic further.

Types of Research Projects

Research studies can be classified into two types based on funding: funded research and non-funded research.

Funded research is conducted with financial support from external sources, such as government agencies, private organizations, or foundations. This funding comes with requirements and constraints that can impact the research process, such as the need to report progress regularly, adhere to specific guidelines, or meet certain milestones.

Non-funded research, on the other hand, is conducted without any external financial support, allowing for more flexibility and independence, but may also be limited in scope and resources.
Despite the differences in funding, the actual cycle or process of research remains relatively similar for both funded and non-funded research. Both types involve the same basic steps of identifying a research topic, conducting a literature review, formulating research questions, collecting and analyzing data, and interpreting the results. However, funded research often has more requirements and constraints compared to non-funded research, including deadlines for completing certain stages of the research, requirements for reporting progress to the funding agency, and limitations on the use of funds.

Key differences between self-funded and funded research include the funding source, research focus, accountability and reporting, and competitive nature. Funded research relies on an

external source for funding, is typically more focused and directed towards addressing a specific problem or research gap, and usually requires a greater level of accountability and reporting to the funding agency. Funded research also often involves a competitive process, such as a grant proposal, where researchers must compete against other applicants to secure funding.

1. The process of funded research

The process of funded research typically begins with a funding organization issuing a request for proposals (RFP) or a call for applications that outlines specific research areas, questions, or themes of interest. The RFP specifies the application deadline, funding available, eligibility criteria, and evaluation criteria.

Researchers or institutions interested in applying for the grant prepare and submit a research proposal that describes their proposed research project, including the research question, methodology, timeline, budget, and expected outcomes. The proposal should present and justify the need to study the research problem and describe practical ways in which the proposed study will be conducted.

The content of the proposal may vary depending on the field of study, type of research, and funding. Some donors require an elaborate and formal proposal, while others require a brief overview of envisaged activities and steps.

After the application deadline, the funding organization reviews the proposals and selects those that align with their priorities and goals. If a proposal is selected, the researcher or institution receives funding to carry out the research project, which may cover salaries, equipment, travel, and other research-related expenses.

Once funding is secured, researchers must adhere to the funding organization's guidelines and priorities, which can limit their autonomy and flexibility in designing and conducting their research. This also applies to research projects that may be part of a larger grant to an organization.

During the research project, there is usually a greater level of accountability and reporting required to the funding agency, including regular progress updates, financial reports, and results. Researchers must meet reporting requirements and provide evidence of the project's success and impact.

2. A typical research proposal

When preparing a research proposal for a grant application, it is crucial to present and justify the need to study a research problem and describe practical ways to conduct the proposed study. A typical research proposal may include the below-listed sections:

- The proposal may include a section on literature review related to the research topic.
- A detailed methodology for conducting the research should be provided in the proposal.
- The proposal should also outline a data collection approach, including fieldwork.

- A quality assurance plan and methodology should be described in the proposal.
- Possible analysis techniques based on research needs should be included in the proposal.
- Possible reporting formats, such as periodic and analytical reports, should be specified in the proposal.
- The proposal should provide a description and illustration of the timeline of activities (Gantt chart).
- A detailed description of the needed resources, such as logistics and staffing, should be included in the proposal.
- A detailed financial plan, including the budget and its narrative, should also be included in the proposal.

The content of the proposal may vary depending on the field of study, type of research, and funding. By carefully crafting a compelling proposal that aligns with the funding organization's priorities and goals, researchers can increase their chances of receiving funding for their research project.

Here are some open-source links that might be helpful when preparing your research proposal

- The Grant Proposal Guide from the National Science Foundation: https://www.nsf.gov/pubs/policydocs/pappg20_1/index.jsp
- The Guide for Writing a Funding Proposal by S. Joseph Levine: http://www.learnerassociates.net/proposal/
- The Proposal Writer's Guide by Don Thackrey: https://www.fdncenter.org/download/ThackreysProposalGuide.pdf
- The Guide to Proposal Writing by the Social Science Research Council: https://www.ssrc.org/publications/view/the-art-of-writing-proposals/

While some of these resources may have been created for a Western audience, the general principles, and tips they provide could still be applicable to researchers in Afghanistan who are interested to learn more about developing proposals for funded research and grants.

Key Points

In summary, the main takeaways from this chapter are:

- When starting a research project, find a research topic (e.g., a social problem or a phenomenon that interests you).
- After identifying your research topic, conducting a literature review is the next step after identifying a research topic.
- The literature review can help identify the current state of knowledge and any gaps in the literature and determine how your research can contribute to the existing body of knowledge.
- When conducting a literature review, keep in mind the following:
  - What is already known about the research topic?
  - What are relevant concepts and theories?
  - What are significant controversies discussed about the research topic?
- When conducting a literature review, be mindful of access, cultural sensitivities, bias and propaganda issues.
- After identifying the research problem and reviewing relevant literature, write a problem statement that answers the questions:
  - What is the problem?
  - How does it affect people or society?
  - Why should you explore it?
  - Ultimately, how will your research help?
- To create a good research question, you should make sure that:
  - It is specific, focused, and answerable through empirical research.
  - It has a clear and defined concept(s).
  - It is feasible and realistic, given the available resources.
  - It leads to meaningful results.
  - It is ethical and respectful of research participants.
- There are essentially two types of research projects – funded and non-funded.
- The process of funded research typically begins with a funding organization issuing a request for proposals (RFP) or a call for applications that outlines specific research areas, questions, or themes of interest.

Checklist

When designing your research, you should feel confident about answering 'yes' to the following questions:

1	Do you know the requirements of your research (if funded)?	☐
2	Have you formulated research questions and discussed them with your relevant team members, peers, colleagues, etc.?	☐
3	Are the research questions you have identified capable of being answered through your research?	☐
4	Have you conducted a review of the relevant literature for choosing your research questions and research topic, in general?	☐
5	Are there likely to be any ethical issues that might be raised in connection with your research?	☐
6	Do you have a clear timetable for your research project with clearly identifiable milestones for achieving specific tasks?	☐
7	Do you have sufficient financial and logistical resources to enable you to carry out your research project?	☐
8	Have you allowed enough time for planning, doing, and writing up your research project?	☐

Further Readings

- Designing a research project, a guidebook that provides practical tips and step-by-step guidance on how to design a research project, from identifying research questions to data analysis and report writing. https://www.boomhogeronderwijs.nl/media/6/9789059315723_inkijkexemplaar.pdf
- Designing and proposing research paper, a book that offers comprehensive advice on how to design and write a research paper, covering topics such as selecting a research topic, developing a research question, and designing a study. https://www.apa.org/pubs/books/Designing-and-Proposing-Research-Paper-Series-Forward-and-Intro-Sample.pdf
- Designing and managing research projects, a textbook that provides a thorough overview of the research process, from the initial stages of designing a research project to the final stages of data analysis and dissemination. https://us.sagepub.com/sites/default/files/upm-assets/35386_book_item_35386.pdf

Additional useful sources for designing research projects in Afghanistan.

- The Afghanistan Research and Evaluation Unit (AREU) provides a range of resources related to research design, methodology, and ethics in Afghanistan. https://areu.org.af/resources/.
- The Research Methods Knowledge Base is an online resource for social science researchers, providing information on research design, sampling, measurement, data analysis, and more. While not specific to Afghanistan, it provides useful guidance on designing research studies in general. https://conjointly.com/kb/.
- The International Development Research Centre (IDRC) is a Canadian organization that funds research projects in developing countries, including Afghanistan. https://www.idrc.ca/en/.

CHAPTER 7: DECIDING ON YOUR RESEARCH METHODOLOGY

Content

This chapter provides an overview of commonly used social research methods, offering foundational concepts and practical considerations for researchers. It highlights key aspects to consider when selecting research methods and provides insights on quantitative, qualitative, and mixed methods approaches, as well as strategies for validating research methods. The chapter covers:

- What to consider when deliberating on a research method.
- Key factors to consider when selecting quantitative social research methods.
- Key aspects to bear in mind when choosing qualitative social research methods.
- Key considerations for combining qualitative and quantitative approaches.
- Approaches to validate your selected social research methods.

Overall, this chapter emphasizes the importance of deliberating on research methods, provides insights into different approaches, and highlights the significance of validating research methods to enhance the quality and rigor of social research.

Selecting A Research Methodology

Selecting your research methodology is a crucial step in your research project because it determines how data will be collected, analyzed, and reported. When deciding on a methodology, researchers need to consider several criteria to ensure that their research is valid, feasible, and ethical. In this chapter, we will discuss the key factors that should be considered when selecting a research method, including the problem, practicality, previous studies, and ethical considerations.

What to consider when deliberating about your research methodology

The problem: The first step in deciding on a methodology is to consider the research question or problem. Is it specific and well-defined, or does it need further refinement?

For example, if you are interested in studying women's access to justice in Afghanistan, you may need to refine your problem statement by specifying which regions in Afghanistan and what type of barrier to focus on, given that women face a lot of barriers in accessing justice.

Practicality: The practicality of a research project is also an essential consideration. In the context of Afghanistan, you need to ensure that your research design is feasible and can be implemented in practice, given the available resources, time, and access to participants.

For example, if you are studying women's access to justice, you may face challenges in accessing certain regions due to security concerns and may need to work with local organizations to gain access to participants.

Previous studies: Another factor to consider is whether the topic has already been extensively researched. In the case of women's access to justice in Afghanistan, there is some existing literature, but there are still many gaps in our understanding of the issue, particularly in terms of the experiences of women in rural areas.

Ethical considerations: Finally, ethical considerations must be taken into account when selecting a research method. You need to ensure that your research design and data collection process are respectful of the cultural and religious norms and that there is no potential for harm to participants or stakeholders.

For example, if you are studying women's access to justice, you may need to ensure that the data collection process is designed in a way that respects participants' privacy and does not put them at risk of retaliation from their communities.

Ultimately, the choice of your research methodology should be guided by your research question and the specific context in which it is being conducted. You should remain open to adapting your research design as new insights emerge throughout the research process.

As discussed earlier in this guide (see chapters 1 and 2), research methodologies are mainly in two forms, qualitative and quantitative. Here, in this chapter, we will discuss how to decide on each form, the key steps to follow, and important points to consider.

Selecting Quantitative Method

The quantitative research method provides a structured approach that enables you to gather numerical data that can be analyzed statistically. This, in turn, allows you to draw conclusions about relationships between variables with a high degree of precision.

Quantitative research is also useful when studying large populations, as it allows you to collect data from a significant number of participants and generalize findings to the larger population. Additionally, it can be used to identify cause-and-effect relationships, which can be beneficial for policymakers, healthcare professionals, and other decision-makers.

When designing a research project using quantitative methods, follow these steps:

1. **Narrow down your research question/problem into manageable questions** by focusing on specific aspects of the problem. For example, ask yourself which aspect of the legal system in Afghanistan you want to study and which legal actors you want to focus on (e.g., ask questions or interview)
2. Once you have a clear research question, **consider how you will do your sampling and data collection.** Determine whether enough people will participate in surveys or interviews and how you will ensure that the survey covers issues related to law practice and people's access to law in rural and urban areas.
3. **Determine the type of data you wish to work with.** Consider whether existing data is available that you can use for your literature review and when writing your analysis. If not, think about the accessibility of data and potential obstacles related to data protection issues.
4. Once you have an idea of the type of data to work with, **decide on a data collection approach** such as surveys, interviews, etc.
5. **Develop a set of questions** to help you gather the data that you need and respond to your main research question/topic.

We will discuss each step in much detail in the later sections of this guide.

You can choose the quantitative research method because of the following attributes:

1. Measurable outcomes

Quantitative research methods allow for the measurement of variables and outcomes in a precise and objective manner. In other words, quantitative research methods can be used to collect and analyze numerical data, generating measurable outcomes that provide insights into the factors affecting the topic under study. See the example below.

For example, a researcher conducting a study on access to education in rural Afghanistan may

use quantitative research methods to collect data through structured surveys administered to households in rural areas. The survey may include questions related to factors such as distance to schools, availability of transportation, household income, parental education level, and availability of educational resources. The data collected can be analyzed using statistical techniques to measure the associations between these factors and access to education.

The measurable outcomes generated from the quantitative analysis can provide valuable insights into the factors that impact access to education in rural Afghanistan. For instance, the findings may reveal that distance to schools and availability of transportation are significant barriers to access to education, while household income and parental education level are positively associated with higher levels of access to education. These measurable outcomes can be expressed in numerical terms, providing a precise and objective assessment of the factors affecting access to education in rural Afghanistan.

These measurable outcomes can be used to inform policies and interventions aimed at improving access to education in rural Afghanistan by identifying the key areas that need attention and prioritization. Additionally, the findings can contribute to the existing body of knowledge on access to education in Afghanistan and help guide future research and decision-making efforts in addressing this important social issue.

2. Using quantitative methods for large sample sizes

By using quantitative methods, you can collect data from a large number of participants, which can increase the generalizability of your research findings. Let us explore this point using the example below:

A researcher interested in studying corruption in the justice system in Afghanistan may design a quantitative research study to collect data from a large sample of judges, lawyers, and court personnel across different regions of the country. The researcher could use structured questionnaires or surveys to collect data on perceptions of corruption, experiences with bribery or extortion, attitudes towards integrity and accountability, and other relevant variables. The data collected can then be analyzed using statistical techniques to examine the patterns and associations.

The large sample size allows for the generalizability of the research findings to a broader population of justice system stakeholders in Afghanistan. The use of quantitative methods can also facilitate subgroup analyses, such as examining differences in corruption perceptions or experiences between different regions, genders, or professional roles, which can provide insights into contextual or demographic factors that may influence corruption dynamics in the justice system.

3. Standardization

Quantitative research methods involve using standardized instruments for data collection, which can help ensure the consistency and reliability of data across different respondents. Using a standardized survey instrument can provide comparable data across different regions and

contexts in the example of studying the link between law and education in Afghanistan. Let us discuss it in the example below.

For example, a researcher interested in investigating the relationship between law and education in Afghanistan may design a quantitative research study using a standardized survey instrument to collect data from various stakeholders, such as teachers, students, parents, and policymakers, across different regions of the country. The survey instrument may include standardized items or scales that measure variables related to the quality of education, access to education, awareness of laws and regulations, perceptions of law enforcement, and other relevant factors. The standardized instrument ensures that the same set of questions is asked to all respondents in a consistent manner, minimizing potential biases and variations in data collection.

By using a standardized survey instrument, the researcher can obtain comparable data across different regions and contexts in Afghanistan. This allows for meaningful comparisons and analyses of the relationship between law and education in different parts of the country, providing insights into similarities or differences in education outcomes or perceptions of law across different regions. The standardized instrument also enhances the reliability of data, as it ensures that data is collected consistently, minimizing measurement errors and enhancing the validity of the research findings.

Overall, quantitative research methods can help in providing empirical evidence to support research questions and hypotheses and can be particularly useful in situations where precise and objective measurements are required.

Selecting Qualitative Method

Qualitative research is typically chosen when the aim is to gain an in-depth understanding of a particular phenomenon rather than to generalize findings to a larger population. Qualitative research methods are particularly useful when studying complex social and cultural phenomena that cannot be easily measured or quantified, such as attitudes, beliefs, values, and experiences.

To illustrate this point, let us revisit the example used in the box above. While a quantitative study could assess the effectiveness of the legal system or people's access to courts in a specific location, a qualitative approach could explore individual experiences (i.e., reactions, feelings, and other contextual factors) of visiting courts in Afghanistan. This could provide a more nuanced and in-depth understanding of the experiences of those interacting with the legal system in a particular context.

As discussed above, the choice between quantitative and qualitative research methods is not mutually exclusive. In some cases, a mixed-methods approach, combining both quantitative and qualitative methods, could be more appropriate to address the research question comprehensively. The decision to use a mixed-methods approach could be based on the research problem, data availability, research question, and other contextual factors (Creswell 2018).

1. Key considerations for designing qualitative research

To start designing your qualitative research, you should follow three key steps. First, break down your research question and problem rationale into key components and features. This is critical to know what type of design matches your research plan. To do this, you need to consider what you want to collect, from whom, and how.

For example, let us say you want to explore the experiences of Afghan women who have been through the criminal justice system. You might break down your research question into the following key components:

Research question: What are the experiences of Afghan women who have been through the criminal justice system?

Key components and features:

- Participants: Afghan women who have been through the criminal justice system.
- Setting: Afghanistan.
- The phenomenon of interest: Experiences of women who have been through the criminal justice system.
- Data collection methods: In-depth interviews and focus group discussions.

Once you have identified these key components and features, you can then begin to think about the specific design of your research study, such as selecting your participants, determining your data collection methods, and planning your data analysis approach.

Defining “what do you want to collect?” is primarily informed by your research questions and problem statements. After breaking down the research question, you should have a better idea of how many questions your questionnaire should include. To design effective data collection tools, you can refer to relevant literature and research studies and consider best practices for survey design.

Next, you need to define "from whom" you should collect data. The research question and scope of the study should give you a better idea of who should be interviewed. For instance, if you want to study the effectiveness of the legal system in Afghanistan, it is rational to interview legal practitioners, judges, lawyers, and, most importantly, ordinary people who may have used the legal system. To determine your sample size, you can use sampling techniques (we will discuss sampling in the following chapters) and consider factors such as demographics, geographic location, and other relevant characteristics.

After identifying potential participants, you should select the type of qualitative interview that best suits your research. Depending on the research type and topic under study, you may choose to conduct a key informant interview, an in-depth interview, or a group discussion. Alternatively, you may conduct a case study on an interesting case that you would like to explore further in your research by doing a series of targeted interviews. The choice of interview type will depend on your research goals, the level of interaction you want to have with participants, and the types of data you want to collect.

Comparison of Qualitative vs. Quantitative Methods

When deciding on your research methodology, compare the advantages and disadvantages of quantitative and qualitative research. (Refer to Chapter 2 of this guide for details on qualitative and quantitative research.)

- Quantitative research is appropriate when you want to determine the causal relationship between variables or measure the effect of interventions on outcomes.
- In contrast, qualitative research is useful for exploring new phenomena, understanding social contexts, and gaining insights into the lived experiences of individuals or groups.

You should also consider the resources available to you, including funding, time, and other logistical constraints. Ensure that you can analyze the collected data within the allotted time frame and budget.

Sampling is another critical consideration when selecting your research methodology. You need to consider the diversity of the issue within the population frame and whether your target groups are represented fully. Sampling techniques can help you ensure that your sample is representative of the population of interest. (Refer to Chapter 8 for a detailed discussion on sampling concepts in social research.)

Finally, you need to consider the research format, accessibility, context, and culture. You should determine whether you will conduct online or in-person interviews and whether you can visit the locations and interview people. It is also essential to consider local culture, sensitivities, customs, and beliefs when conducting qualitative research in different settings.

In summary, designing a research method requires careful consideration of many factors. By following these key steps and considering the advantages and disadvantages of different research methodologies, you can develop a robust research plan that will lead to meaningful and actionable findings.

The following table summarizes the key points to consider when deciding between a qualitative and quantitative research method:

Decision	Quantitative	Qualitative
Research Question	Tests existing theories or hypotheses and measures variables and relationships.	Examines new or complex phenomena and explores perceptions, experiences, and meanings.
Research Goal	Findings and data patterns are generalizable to a larger population.	Provides detailed understanding and context-specific knowledge and enables exploration of the phenomenon.
Resources	It requires large sample sizes, structured data collection methods, and statistical	It requires small sample sizes and has flexible data collection methods.

	analysis.	
Sampling	You can use random or stratified sampling, among others, as long as your sample is statistically representative.	You can use purposeful sampling, considering the diversity of perspectives and experiences.
Data Collection	Requires standardized data collection tools, closed-ended questions, and a high focus on numerical data.	Requires open-ended questions, in-depth interviews, observation, and textual or visual data.
Data Analysis	In analysis, you need to focus on numerical data and statistical operations.	Qualitative data analysis is flexible and can be done in many ways, including textual or visual data interpretation, thematic analysis, etc.
Researcher Role	Objective and neutral, distant from participants.	Subjective and involved, close to participants.
Findings	Objective and quantifiable, generalizable to the population.	Subjective and context-bound, transferable to similar contexts, and rich and detailed descriptions.
Validity	Internal and external validity, reliability, replicability.	Credibility, dependability, transferability, confirmability.

Combining Qualitative and Quantitative Methods

Mixed methods research is an approach that integrates both qualitative and quantitative research methods in a single study or research project. It offers a unique way of addressing research questions that cannot be fully answered using only one method. Mixed methods research provides the benefits of both qualitative and quantitative approaches, combining the strengths of each while minimizing their respective limitations. The aim is to provide a more comprehensive understanding of the research problem by collecting and analyzing data from different perspectives and sources. In this article, we will discuss the key characteristics and benefits of mixed methods research and provide examples of how this approach can be applied in different research contexts.

Like deciding on a single method, you need to carefully consider various factors, including the research question, available resources, and the nature of the data being collected. The decision to use a mixed approach should be guided by the need to achieve a more comprehensive understanding of the research problem, which cannot be fully captured by either a qualitative or quantitative approach alone.

To help you better understand how researchers decide on different approaches for their research topics, let us explore the below examples of possible research topics in Afghanistan.

Qualitative method: Understanding barriers to education in rural Afghanistan

A researcher may choose to use qualitative methods to understand the barriers to education faced by children in rural Afghanistan. This type of research would involve conducting in-depth

interviews or focus group discussions with community members, teachers, parents, and children to explore their experiences and perspectives on the issue. The researcher may also observe the school environment and collect relevant documents and reports to gain a deeper understanding of the local context.

Qualitative methods may be preferred for this type of research because they allow for an in-depth exploration of the lived experiences and perspectives of the participants. By using open-ended questions and allowing participants to share their stories and views, the researcher can gain insights into the cultural, social, and economic factors that affect access to education in rural areas of Afghanistan. The researcher may also be able to identify unique challenges and opportunities that are specific to the local context, such as the role of gender norms or the impact of the conflict on education.

In summary, qualitative methods can be a valuable tool for understanding the complex and context-specific issues related to education in rural Afghanistan. By listening to the voices of community members and gaining a deeper understanding of their experiences, researchers can identify effective strategies to improve access to education and address the challenges faced by children in these areas.

Quantitative method: Exploring the impact of cultural beliefs on women's healthcare access

In Afghanistan, cultural beliefs and gender roles heavily influence women's access to healthcare services. For example, some women may not be allowed to see male doctors, and others may not be allowed to leave their homes without a male escort. These cultural beliefs can result in limited access to healthcare services for women, including reproductive and maternal health services.

A qualitative approach can be used to explore how cultural beliefs impact women's access to healthcare services in Afghanistan. Researchers can conduct in-depth interviews with women from different regions to understand their experiences with healthcare access and identify common barriers they face. By using qualitative methods such as open-ended questions and follow-up probes, researchers can gain a rich understanding of the complex cultural, social, and economic factors that affect women's access to healthcare services.

The findings from such a study can inform policymakers and healthcare providers about the barriers women face in accessing healthcare services and help them design interventions that are culturally appropriate and effective in improving women's health outcomes in Afghanistan.

Mixed approach: Understanding the experiences of Afghan refugees

Understanding the experiences of Afghan refugees is a complex issue that requires an in-depth understanding of the challenges and needs of these individuals. As a researcher, you want to explore the different factors that contribute to the refugee experience, such as coping mechanisms, social support, and access to resources. To achieve this, you must consider the research question, the research problem, and the research context to determine which

approach is the most appropriate.

Quantitative methods, such as surveys or questionnaires, could provide generalizable results that could help to identify the prevalence of certain challenges or needs of Afghan refugees. However, conducting surveys with refugees can be challenging due to language barriers, lack of trust, and cultural differences. Furthermore, surveys may not capture the nuances of the refugee experience, such as the personal stories and perspectives of the refugees themselves.

On the other hand, qualitative methods, such as in-depth interviews or focus group discussions, allow researchers to gain a deeper understanding of the experiences of refugees. By conducting these types of interviews, researchers can explore the different factors that contribute to the refugee experience and gain insight into the unique perspectives of Afghan refugees. Qualitative methods can also provide an opportunity for refugees to share their personal stories, which can help to inform policies and programs aimed at assisting refugees.

Considering the benefits and limitations of both quantitative and qualitative methods, you could decide to use a mixed research approach. By combining quantitative and qualitative methods, you can address the limitations of each approach while capitalizing on their strengths. Specifically, you could plan to use a survey to collect quantitative data on the prevalence of certain challenges and needs of Afghan refugees. Then, use in-depth interviews to explore the unique experiences and perspectives of Afghan refugees. By using a mixed approach, you can provide a more comprehensive understanding of the needs and challenges of Afghan refugees, which can inform policies and programs aimed at supporting them.

Validating Research Methodology

The next step is to validate your research methodology. You need to ensure that your chosen methods are appropriate for the research questions and objectives, the data collected is reliable and valid, and the conclusions drawn from the analysis of the data are credible and trustworthy (Maxwell, 2013).

Here are some ways to do so:

1. **Review the literature:** A thorough review of existing literature on your research topic can provide insight into what methods have been used previously and how well they worked. This can help you validate your research methodology.
2. **Use established methods:** Using established research methods that have been proven effective in previous studies can increase the credibility of your research by ensuring that it is based on accepted practices.
3. **Pilot testing:** Conducting pilot tests of your data collection instruments and methods can help identify any potential problems and improve your methodology before you start your study. This can help validate your methods by ensuring that they are effective and appropriate.
4. **Use multiple methods:** Using multiple data collection methods can help validate your research methodology. By using multiple methods, you can triangulate your results and ensure that they are consistent across different methods.

5. **Peer review:** Peer review is the process of having other experts in the field review your research methods and results. This can help validate your methodology by ensuring that it is credible and reliable.
6. **Transparency:** Being transparent about your research methodology, including your data collection methods, analysis procedures, and any potential limitations, can help validate your research. By providing a clear and detailed description of your methods, others can evaluate the credibility and validity of your research.

Validating the research methodology is typically done after selecting the methodology, but it can also be an ongoing process throughout the research project. Throughout the research process, continuously assess and validate the chosen methodology to ensure that it is appropriate for the research questions and objectives and that the data collected is reliable and valid. So, while it may be a step in the research process, it is not necessarily a rigid sequential process and may involve ongoing assessment and validation.

Here is an example to help you better understand the validation of the research method:

Suppose you are conducting a study on the impact of gender-based violence on Afghan women's mental health. To validate your research methodology from a gender perspective, you could take the following steps:

1. Ensure that your research questions and objectives reflect a gender-sensitive perspective. For example, rather than simply asking how GBV impacts mental health, you could explore how GBV impacts women's mental health differently than men's mental health.
2. Review the literature on GBV and mental health in Afghanistan from a gender perspective. This will help you identify any gaps in existing research and ensure that your study builds on established knowledge.
3. Consider using a gender-sensitive data collection method, such as conducting interviews or focus group discussions with female survivors of GBV. This will ensure that women's voices and experiences are centered in your research.
4. Pay attention to the power dynamics between the researcher and participants. If you, as a researcher, are male, consider partnering with a female researcher or hiring female research assistants to conduct interviews with female survivors of GBV. This will help ensure that participants feel comfortable and safe sharing their experiences.
5. Ensure that your analysis of the data considers gender as a factor. For example, you could compare the experiences of male and female survivors of GBV and analyze any differences in how they cope with the impacts of violence.

By taking these steps, you can ensure that your research methodology is validated from a gender perspective and that your study contributes to a more nuanced understanding of the impact of GBV on Afghan women's mental health.

Key Points

In summary, the main takeaways from this chapter are:

- Clearly defining your research question is crucial in determining the appropriate methodology. **The methodology you choose should align with your research question** and help you address it effectively.
- **Consider the overall design of your study**, whether it is qualitative, quantitative, or mixed methods.
  - Qualitative research typically involves an in-depth exploration of social phenomena, while quantitative research involves data collection and statistical analysis.
  - Mixed methods research combines both qualitative and quantitative approaches.
  - The research design you choose should be aligned with your research question and the type of data you need to collect.
- **Choose appropriate data collection methods** based on your research question and research design.
  - Data collection methods may include surveys, interviews, and secondary research, among others.
  - Consider the strengths and limitations of each method, as well as the practical feasibility of implementing them in your research context.
- When selecting your research methodology, **be on the lookout for any potential ethical challenges or issues that may arise during data collection and analysis** and develop strategies to address them appropriately.
- **When deciding on a research method, consider the data analysis needs** (e.g., techniques that are appropriate for your research question and feasible given the data collection method).
- Consider the **resources, including time, budget, and personnel, required to implement your** chosen methodology.
  - Assess the feasibility of your research plan and ensure that you have access to the necessary resources to carry out your research effectively.
- Conduct a **validity check of your research method** by ensuring the sampling is representative enough for the findings to be applicable, credible, and generalizable if needed.

Checklist

When working on your research method, you should feel confident about answering 'yes' to the following questions:

1	Have you cross-checked your research approach with other similar research/studies? Have they used the same approach? If yes, why? And if not, why?	☐
2	Have you outlined reasons why you selected a particular approach (i.e., qualitative or quantitative)?	☐
3	Do you think that the method that you have selected can adequately respond to the analysis needed at the later stages?	☐
4	When choosing this method, have you considered your target groups (population, type)?	☐
5	Can you access the people/materials you will need for your research?	☐
6	Have you cross-checked your approach with standard ethical considerations?	☐
7	Do you have the resources to implement this method?	☐
8	Are you clear on the format of your research – online or offline?	☐
9	Is your research design and methodology valid internally?	☐
10	Is your research sampling representative enough – externally valid?	☐

Further Reading

- Research Methodology Course by the United Nations Development Programme (UNDP): https://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/research-methodology-course.html
- Qualitative Research Methods: A Data Collector's Field Guide by Family Health International: https://www.measureevaluation.org/resources/publications/ms-13-18
- Research Methods in Anthropology by H. Russell Bernard: https://www.jstor.org/stable/j.ctt183p2v7
- Research Methods Knowledge Base by William M.K. Trochim: https://www.socialresearchmethods.net/kb/
- Doing Development Research by Vandana Desai and Robert B. Potter: https://www.taylorfrancis.com/books/doing-development-research-vandana-desai-robert-potter/10.4324/9781315767406

CHAPTER 8: SAMPLING IN SOCIAL RESEARCH

Contents

This chapter offers a comprehensive description of sampling in social research, including foundational concepts and step-by-step instructions for calculating a valid sample for a social research study.

The chapter covers the following topics:

- Foundational concepts of sampling in social research.
- Probability sampling methods including simple random sampling, stratified sampling, cluster sampling, and systematic sampling.
- Non-probability sampling methods including convenient sampling, purposive sampling, snowball sampling, and quota sampling.
- Step-by-step instructions on calculating sample size for research projects.
- Key considerations for drawing a valid and representative sample, such as expected response rate, population subgroups, research design, budget and resource constraints, and sampling choice.

Overall, readers will gain an understanding of the underlying concepts in research sampling and be able to draw a valid and representative sample for their social research study by following the guidelines provided in this chapter.

Sampling in Social Research

It is often impractical to collect data from an entire population when conducting research. Instead, researchers select a smaller group of people to represent the larger population, which is known as sampling. For example, a researcher interested in studying the attitudes of Afghan judges toward women's rights would need to select a sample of Afghan judges.

The target population should be based on the research goal and purpose. This can involve considering various characteristics of the population, such as age, gender, location, occupation, and membership in a particular group. For instance, a researcher investigating access to justice for IDPs in Afghanistan would need to define the target population as Afghan IDPs.

Sometimes selecting a valid and credible sample from the population can be challenging, particularly if the population is large and complex. To ensure that the findings and results of your research can be generalized, your sample should represent all relevant groups within the population. This is especially important in the context of justice research in Afghanistan, where different regions, ethnic groups, and socioeconomic backgrounds may influence experiences within the justice system. For example, a researcher interested in studying the experiences of Afghan women in the justice system would need to use a sampling method that ensures that women from different regions, ethnic groups, and socioeconomic backgrounds are represented in the sample.

There are two main sampling methods: probability and non-probability sampling.

- **Probability sampling** involves randomly selecting individuals from the population to ensure that everyone has an equal chance of being included in the sample. This method is commonly used in quantitative research and allows for statistical inferences to be made about the larger population.
- **Non-probability sampling**, on the other hand, involves purposefully selecting individuals based on research criteria such as location, gender, or occupation. This method is often used in qualitative research and is useful when the population is difficult to define or access.

To determine which sampling method to use, first define the **sampling frame** and sample size. The sampling frame is the actual list of individuals from which the sample will be selected. For example, if researching the effectiveness of the legal system in Afghanistan, the sampling frame would include individuals working in the legal system, such as judges, lawyers, prosecutors, and beneficiaries of the legal system.

The **sample size** refers to the number of individuals selected from the sampling frame. It is important to ensure that the sample size is large enough to produce reliable and accurate results but not so large that it becomes unmanageable. The appropriate sample size will depend on factors such as the research design, population size, and desired level of precision. There are statistically approved formulas and methods that researcher use based on the field of study and research context. (Please refer to the end of this section to read about calculating your research sample size)

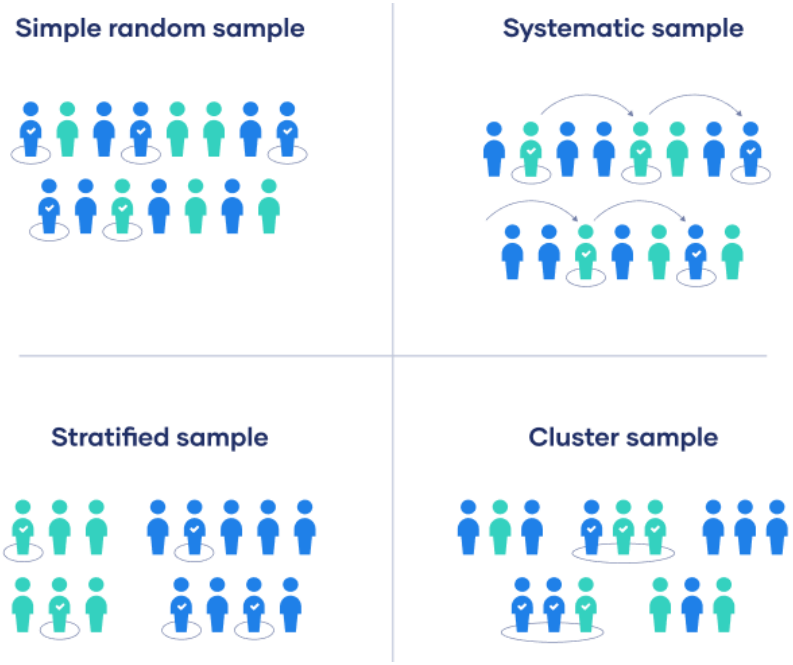
Overall, selecting an appropriate sampling method and determining the sampling frame and sample size are critical steps in conducting valid and reliable research, especially in the context of justice research in Afghanistan, where the population can be diverse and complex.

To ensure valid and reliable sampling methods are used, researchers have devised different sampling methods based on the type of sampling (probability or non-probability). Probability sampling is often used in quantitative research, mainly in surveys. In this type of sampling, every member of the target population has an equal chance of being selected.

1. Probability Sampling

There are four main types of probability sampling methods: simple random sampling, stratified sampling, cluster sampling, and systematic sampling.

Figure 2: Four types of probability sampling. Source: scribbr



i. Simple random sampling

Simple random sampling is a basic method of randomly selecting individuals from a population to create a sample. It involves assigning numbers to each person in the population and then randomly choosing individuals based on these numbers. For example, if a researcher wants to study the literacy levels of people in Afghanistan, they could assign a number to each person in Afghanistan and then randomly select a certain number of individuals from this list. This would result in a random sample of people from Afghanistan, allowing the researcher to make generalizations about the literacy levels of the entire population based on the characteristics of the sample.

Example: A researcher wants to study the opinions of residents in Kabul about the state of the justice system in Afghanistan. To select a random sample, the researcher can create a list of all residents in Kabul and assign each person a unique number. Then, using a random number

generator, the researcher can select a certain number of individuals from the list. If the researcher wants a sample size of 100, they can randomly select 100 numbers from the list and contact the corresponding individuals for the study.

ii. Stratified sampling

Stratified sampling involves dividing the population into subgroups based on characteristics such as gender, age, job, etc. A random sample is then drawn from each subgroup, ensuring that every subgroup is properly represented in the sample. This type of sampling allows researchers to draw more precise conclusions about the population. For example, if a researcher wants to study the income levels of people in Afghanistan, they could divide the population into different strata based on income ranges, such as low-income, middle-income, and high-income. They would then randomly sample individuals from each income stratum in proportion to its size. This would result in a sample that includes an appropriate representation of people from different income levels in Afghanistan, allowing the researcher to make more precise conclusions about income levels in the entire population.

Suppose a researcher wants to study Afghan citizens' opinions about the country's education system. The population of Afghanistan can be divided into subpopulations based on gender, age, location, and education level. The researcher can then randomly select a certain number of individuals from each subpopulation to form the sample. For example, the researcher can randomly select 50 males and 50 females, 25 individuals from each age group (18-25, 26-35, 36-45, and so on), 25 individuals from each province, and 25 individuals from each education level (primary, secondary, and tertiary).

iii. Systematic sampling

Systematic sampling is like simple random sampling, but instead of random selection, people are selected using a specific interval. For example, if the interval is 2, the sample would be 2nd, 4th, 6th, and so forth.

Suppose a researcher wants to study the effectiveness of a new training program for lawyers in Afghanistan. The researcher can obtain a list of all Lawyers in the country and select a sample by selecting every nth Lawyer on the list. For example, if the researcher wants a sample size of 100 and the list contains 1,000 officers, they can select every 10th officer on the list to form the sample.

iv. Cluster sampling

Cluster sampling is used when the population is spread over a wide geographic area. The population is divided into unique clusters, representing a complex and diverse group, and a random selection is made from the clusters to form the sample. For instance, if the researcher wants to select 100 people from the entire population of Afghanistan, it may not be possible to include everyone on the list. Therefore, cluster sampling will use a random selection of districts/provinces to create a narrowed list and then randomly select 100 people from those districts/provinces.

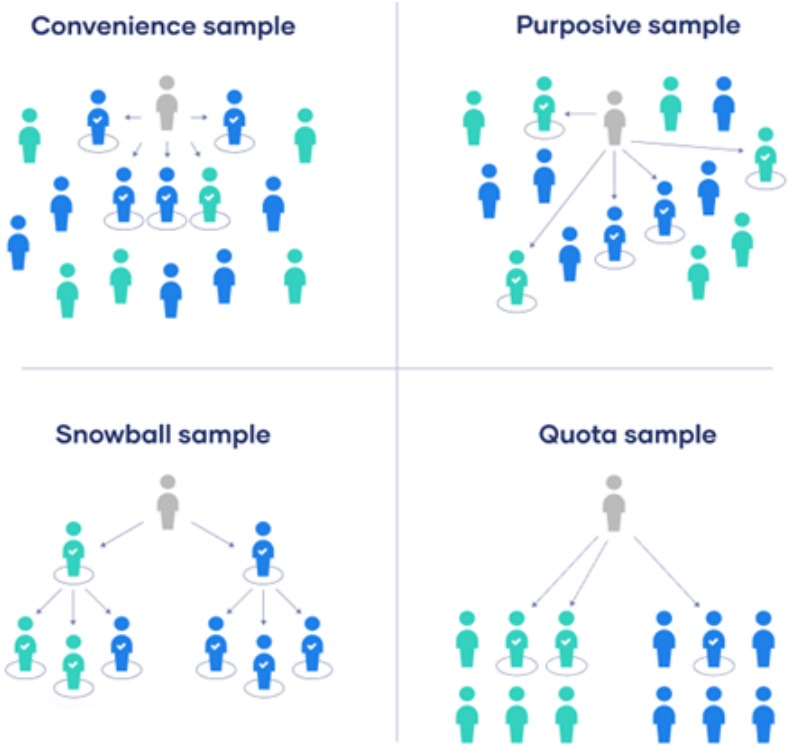
Suppose a researcher wants to study the impact of a new government policy on rural communities in Afghanistan. The population of rural communities is spread across different provinces in the country. The researcher can randomly select a certain number of provinces and then randomly select a certain number of communities within each province to form the sample. For example, the researcher can randomly select five provinces and then randomly select 10 communities within each province to form a sample of 50 rural communities for the study.

2. Non-probability sampling

Non-probability sampling is a type of sampling that differs from probability sampling as it does not require the use of formulas or software to calculate the sample. Instead, other factors, such as proximity, availability, expertise, or specific characteristics, are considered in selecting people for the sample. It is commonly used in qualitative research, where the focus is on exploring a topic and acquiring a better understanding of the population rather than testing a hypothesis.

There are four main types of non-probability sampling: convenient sampling, purposive sampling, snowball sampling, and quota sampling.

Figure 3: Types of non-probability sampling. Source: scribbr



i. Convenient sampling

This type of sampling involves selecting people who are easily available and accessible, such as friends or people walking down a street. While this method is straightforward, it cannot be generalized or applied to a larger population because it lacks statistical significance to represent a large group.

For example, a researcher is conducting a study on the impact of humanitarian intervention on access to clean water in rural areas of Afghanistan. Due to logistical constraints and limited resources, the researcher decided to conduct interviews with people who are easily accessible in the capital city, Kabul. The researcher approaches individuals in public places, such as parks or markets, and asks them to participate in the study. However, this method of convenience sampling may not accurately represent the experiences of people in rural areas of Afghanistan, where access to clean water may be different due to varying geographical, cultural, and socio-economic factors. The findings from this convenience sample may not be generalizable to the larger population of interest, which includes rural areas of Afghanistan, and may only provide limited insights into the research topic.

ii. Purposive sampling

Purposive sampling involves selecting people who are most relevant or beneficial to the research topic. This method is mainly used for qualitative research and does not qualify for quantitative or statistical inferences. The criteria for selecting participants should be clearly defined to avoid any bias in the sample.

A researcher conducting a qualitative study on the experiences of Afghan refugees in a specific city selects participants based on specific criteria, such as age, gender, and length of time in the city, to ensure a diverse representation of perspectives. The researcher purposefully selects participants who are most relevant to the research topic and can provide in-depth insights. However, the findings from this sample may not be statistically generalizable to the entire population of Afghan refugees, as the sample is not randomly selected and may introduce bias.

iii. Snowball sampling

This type of sampling is used when it is difficult to find participants for research. The researcher finds participants through other participants, and this method works well for reaching very specific populations. However, it is subject to researcher and participant bias, as the researcher may only interview people with similar traits or characteristics.

An example of a case study in Afghanistan that could use snowball sampling is a study on the experiences of women who have been subjected to domestic violence. Domestic violence is a sensitive topic in Afghanistan, and many women may be hesitant to come forward and share their experiences. Snowball sampling could be used to reach out to women who have already disclosed their experiences to other women's organizations or support groups. These initial participants could then help the researchers identify and reach out to other women who may be willing to participate in the study. This approach could help ensure that the participants are comfortable sharing their experiences and that their safety and privacy are protected throughout the study.

iv. Quota sampling

Researchers use quota sampling by dividing the population into groups or specific characteristics, such as age, location, or occupation, and setting a target, called a quota, for the number of respondents needed in each group. This method is often used when researchers are faced with limited resources and limited accessibility to the entire population.

Non-probability sampling can be particularly useful in studies related to gender and human rights, particularly when it comes to sensitive topics such as gender-based violence. In the case of Afghanistan, where gender-based violence is a significant concern, non-probability sampling can be an effective way to gather information from survivors and other vulnerable populations.

For example, a study on the prevalence of gender-based violence in Afghanistan might use snowball sampling to reach out to survivors, given the potential challenges in finding and recruiting participants for such a sensitive topic. The researcher might begin by interviewing survivors known to them or to other individuals, then asking those participants to refer other survivors they may know. This method could allow the researcher to identify and interview participants who might not have been reached using more traditional sampling methods.

However, note that non-probability sampling methods can be subject to researcher and participant bias, which can impact the reliability and validity of the study's findings. For example, researchers may be more likely to interview survivors who are more comfortable speaking about their experiences or who have more resources available to them to facilitate participation in the study. Similarly, participants may be more likely to refer individuals who have similar experiences or backgrounds, potentially limiting the diversity of the sample.

To address these issues, researchers using non-probability sampling in gender-based violence studies must take extra precautions to ensure the safety and privacy of participants and to carefully consider their recruitment and selection criteria to ensure a diverse and representative sample. Additionally, researchers should acknowledge and account for potential biases in their analyses and interpretations of the data.

Calculating Research Sample Size

The sample size is the number of people or items in the sample. Determining the sample size is an important part of planning research because it affects the accuracy of the results. To calculate your sample size, you will need to identify and clarify the following information about your research study:

Population size: The population size refers to the total number of individuals or items in the population being studied. If the population size is large, a smaller sample size can still yield accurate results, as the larger population provides more variability. However, if the population size is small, a larger sample size may be needed to obtain accurate results, as a smaller sample may not capture the variability within the population.

The margin of error: The margin of error is the maximum amount of error acceptable in a study's results. It is typically expressed as a percentage and indicates how much the results could deviate from the true population parameters. For example, if the margin of error is set at 5%, it

means that the results can be off by up to 5%. A smaller margin of error requires a larger sample size, as a larger sample size reduces the likelihood of error and increases the precision of the estimates.

Confidence level: The confidence level is the level of confidence or certainty that we have in the accuracy of the results obtained from the sample. It is typically expressed as a percentage, such as 95% or 99%. For example, a confidence level of 95% means that we are 95% confident that the results are accurate and reflect the true population parameters. A higher confidence level requires a larger sample size, as a larger sample size reduces the margin of error and increases the confidence in the results.

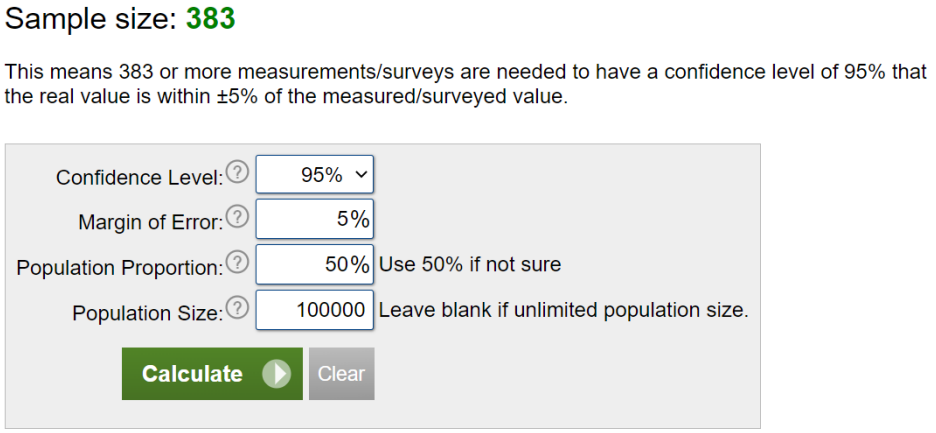
Standard deviation: The standard deviation is a measure of how spread out the data is within the population. A larger standard deviation indicates that the data points are more spread out, while a smaller standard deviation indicates that the data points are closer together. A larger standard deviation requires a larger sample size, as a larger sample size is needed to accurately capture the variability in the data and obtain reliable estimates of the population parameters.

Once we have these factors, we can use a statistical formula to calculate the sample size. However, there are also free online sample size calculators that can do the calculation for us such as https://www.surveysystem.com/sscalc.htm or other similar sources.

1. Steps in the sample calculation

To calculate the sample size, start with estimating approximate population size, determine a standard or accepted confidence level and margin of error, and a standard deviation percentage (the safest is 0.5 when the figure is unknown). Once we have input all these figures, the automatic calculator will give us a sample size for our research. Please see the following example illustrating this process.

Figure 4: Example of sample size calculation



As described in the figure above, for a population size of 100,000, if you want to conduct a survey, a minimum of 383 sample size would be sufficient with a confidence level of 95% and a margin of error of +/- 5.

Let us take an example of a civil society organization in Afghanistan that wants to conduct a study on the challenges faced by women in accessing education in rural areas of the country. Here are the steps they can follow to calculate the sample size:

The **first step** is to **define the population of interest**. In this case, the population is women in rural areas of Afghanistan who face challenges in accessing education.

The **next step** is to **determine the level of precision** required in the study. This refers to the margin of error that the study is willing to accept. The civil society organization might decide that they want a margin of error of +/- 5%, which means that the study's results can be up to 5% higher or lower than the actual value in the population.

The **next step** is to decide **on the confidence level** required for the study. This refers to the level of confidence that the study's results will fall within the margin of error. In most cases, researchers use a confidence level of 95%. This means that if the study is repeated multiple times, the results will be within the margin of error 95% of the time.

Now it is time to **decide on the standard deviation**. In this case, the civil society organization might not have information on the standard deviation, so the general rule of thumb is to assume a value of **0.5**.

Once the above parameters are determined, the sample size can be calculated using a sample size calculator. Using the sample size calculator at https://www.surveysystem.com/sscalc.htm, if we assume a population size of 5 million women in rural areas of Afghanistan, a margin of error of 5%, a confidence level of 95%, and a standard deviation of 0.5, the required sample size as you can see in the figure above, would be 385 women.

2. Other factors to consider when calculating sample size

In addition to population size, margin of error, confidence level, and standard deviation, there are other factors to consider when calculating sample size, depending on the nature of the study. Some of these factors include:

Expected response rate: The expected response rate refers to the percentage of individuals who are expected to respond to the survey or participate in the study. A low response rate can impact the accuracy and reliability of the results, so factor in the expected response rate when calculating sample size.

For example, if a study is expecting a low response rate, say 20%, it means that only a small percentage of individuals are expected to participate or respond to the survey. In this case, a larger sample size may be required to ensure that an adequate number of responses are obtained for accurate and reliable results.

Subgroup analysis: If the study aims to analyze subgroups within the population, such as different age groups or genders, then the sample size for each subgroup needs to be calculated separately. This is important because the variability within each subgroup may be different, which could affect the accuracy of the results.

For example, if a research study aims to analyze subgroups within the population, such as different age groups or genders, the sample size for each subgroup needs to be calculated separately. The variability within each subgroup may be different, and a larger sample size may be needed to capture the variability and obtain reliable results for each subgroup.

Research design: The research design can also impact the sample size calculation. For example, if the study uses a complex statistical analysis such as correlations and regression analysis, a larger sample size may be required to ensure the accuracy and reliability of the results.

For example, a researcher wants to study the impact of access to education on employment outcomes among different ethnic groups in Afghanistan. The research design involves collecting data on the education level, employment status, and ethnic identity of participants and conducting statistical analysis to examine the relationship between these variables. The research design may also involve subgroup analysis, such as analyzing the impact of education on employment outcomes separately for Pashtuns and Tajiks, who are the two largest ethnic groups in Afghanistan.

In this case, the complexity of the research design, which involves multiple variables and subgroup analyses, may require a larger sample size to ensure that there are an adequate number of participants in each ethnic group for meaningful analysis. Different ethnic groups may have different levels of variability and characteristics that need to be captured in the sample size calculation to obtain reliable results.

Budget and time constraints: The sample size calculation should also take into account any budget or time constraints for the study. A larger sample size may require more resources, such as time and money, which may not be feasible for some studies.

Imagine a research project that aims to investigate access to clean water and sanitation facilities among IDPs in a conflict-affected region of Afghanistan. Due to limited funding and logistical challenges in the field, the available budget and time for the study may be constrained. The researcher may need to carefully consider the trade-off between sample size and available resources. If the budget or time constraints are tight, the researcher may need to adjust the sample size accordingly, potentially opting for a smaller sample size that can be feasibly achieved within the available resources.

Sampling method: The sampling method used in the study can also impact the sample size calculation. For instance, if a random sampling method is used, a smaller sample size may be sufficient to ensure the accuracy and reliability of the results compared to a non-probability sampling method.

Consider a study examining the health-seeking behaviors of women in rural areas of Afghanistan. If the researcher chooses to use a random sampling method, such as cluster random sampling or systematic random sampling, a smaller sample size may be sufficient to obtain accurate and reliable results. However, if the researcher chooses to use a non-probability sampling method, such as purposive sampling or quota sampling, due to limitations in access to certain areas or communities, a larger sample size may be needed to account for potential biases in the sample.

This is because non-probability sampling methods may introduce selection biases and limit the generalizability of the findings, which may require a larger sample size to ensure validity.

In conclusion, consider all these factors when calculating the sample size to ensure that the study produces reliable and accurate results. This is particularly true in countries like Afghanistan, where resources, infrastructure, and access to certain areas may be challenging. As a researcher, you may need to carefully navigate these constraints and select a sampling approach that ensures the feasibility and validity of your research findings.

Key Points

In summary, the main takeaways from this chapter are:

- To draw a reasonable sample size, you should know the size of your population, the confidence interval, the margin of error, in some cases standard deviation.
- You can use online available sample calculators to draw an accurate sample size for your research.
- Probability sampling is mainly used in quantitative research (i.e., surveys) and is a more reliable approach for representation and reducing bias.
- Non-probability sampling is mainly used in qualitative research to explore a topic, explain a phenomenon, or better understand the context.
- Probability sampling has four main types: simple random sampling (SRS), stratified sampling, systematic sampling, and cluster sampling.
- Non-probability sampling has four main types: convenient sampling, purposive sampling, snowball sampling, and quota sampling.
- Sample calculation in non-probability research is not based on statistical formulas but requires a more balanced approach by the researcher.
- The larger the sample size, the greater the accuracy is in the research.

Checklist

When trying to select a sample approach and calculate your sample size, you should feel confident about answering 'yes' to the following questions:

1	Have you reviewed your research scope and identified a potential sample approach?	☐
2	Have you identified if you want qualitative research or quantitative?	☐
3	If qualitative, have you selected a sample type?	☐
4	If quantitative, have you selected a sample type?	☐
5	Have you reviewed your resources/time for choosing a sample type?	☐
6	Do you know your population groups and the size of each?	☐
7	Do you know what % of confidence your research needs?	☐
8	Do you know what % of error your research can accommodate?	☐
9	Did you calculate your sample size using available online tools?	☐

Further Readings

- "Sampling for Gender Sensitive Indicators" by UN Women: https://www.unwomen.org/en/digital-library/publications/2018/5/sampling-for-gender-sensitive-indicators
- "Women's Access to Justice in Afghanistan: Bridging the Gap Between Formal Law and Informal Justice Mechanisms" by Anja Ebnöther: https://www.files.ethz.ch/isn/186484/Womens_Access_to_Justice_in_Afghanistan.pdf
- "Gender, Justice and Security: The Impact of Legal Pluralism in Afghanistan" by Tilmann J. Röder: https://www.tandfonline.com/doi/abs/10.1080/03050629.2014.956328
- "Research Methods for Gender and Development" edited by Caroline Sweetman: https://policy-practice.oxfam.org.uk/publications/research-methods-for-gender-and-development-117317
- "Sampling Strategies for Social Science Research in Developing Countries" by Anne E. Pitcher: https://www.jstor.org/stable/24485673

Additional resources to explore in drawing your research sampling:

- Pew Research Center: Sampling: https://www.pewresearch.org/methods/sampling/
- United Nations Development Programme: Sampling Methods for Development Practitioners: https://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/sampling-methods-for-development-practitioners.html
- The World Bank Group: Introduction to Sampling: https://datatopics.worldbank.org/sampling/
- The International Food Policy Research Institute: Sampling in Research: https://www.ifpri.org/topic/sampling-research
- United States Census Bureau: Sampling in Research: https://www.census.gov/programs-surveys/surveyhelp/sampling-methodology/sampling-in-research.html

CHAPTER 9: DEVELOPING DATA COLLECTION TOOLS

Contents

This chapter provides a comprehensive overview of data collection tools in research, including key elements, design features, and guidelines for developing research questions. This chapter covers:

- Types of questions in data collection tools: close-ended and open-ended.
- Stages in developing data collection tools:
    - Drafting research questions.
    - Translating research questions.
    - Coding and organizing questions.
    - Piloting and testing the questionnaire.
- Guidelines for developing research questions for in-depth interviews, group discussions, and surveys.
- Types of questionnaires in terms of format: electronic and paper-based.
- Design features and considerations for electronic and paper-based questionnaires.

Overall, this chapter serves as a comprehensive guide for researchers to understand the key elements of data collection tools, the stages involved in developing them, and specific guidelines for different data collection methods. By following the recommendations provided, researchers will be better equipped to design and implement effective data collection tools that align with the objectives of their research project.

Research Data Collection Tools

Data collection is a critical step in the social research process, as it involves gathering information and data to answer research questions. To effectively collect and analyze data, researchers often rely on various data collection tools, which are designed to facilitate the collection, organization, and analysis of data in a systematic and efficient manner. These tools can range from traditional methods, such as surveys, and interviews, to more advanced technologies, like online questionnaires, sensors, and data analytics software.

Data collection tools play a crucial role in ensuring the accuracy, reliability, and validity of research findings. They enable researchers to collect data in a consistent and standardized manner, minimizing the potential for bias and errors. Moreover, data collection tools allow researchers to efficiently manage and analyze large volumes of data, saving time and resources in the research process.

In recent years, there has been a rapid evolution of data collection tools driven by advancements in technology and changes in research methodologies. Researchers now have access to a wide array of data collection tools that offer various features, functionalities, and formats to suit different research needs. These tools may be web-based, mobile applications, or software programs that can be used on various devices, such as smartphones, tablets, or computers.

Choosing the appropriate data collection tool(s) for a research study requires careful consideration of factors such as research objectives, research design, target population, data types, and data analysis requirements. Researchers need to assess the strengths, limitations, and ethical considerations associated with each tool to ensure the quality and integrity of the collected data.

In this chapter, we will explore various types of data collection tools commonly used in research, their features, advantages, and limitations, and highlight the importance of selecting the right data collection tool(s) for a research study to achieve robust and reliable research outcomes.

Stages of Developing Data Collection Tools

Developing a data collection questionnaire is an essential part of designing a research project. Follow these specific sets of stages to ensure that your questions are well-designed and able to provide the necessary information for your research.

1. Drafting questions

To start with, you decide which topics will be included in the questionnaire. Once you have a rough draft of the questionnaire, you can start drafting the questions. Pay attention to each

question and ensure that it will provide you with the information you need. You may also want to develop a matrix that links each question with your research goals and indicators in a logical model. This will help you to identify missing links and questions during the analysis and write-up of your research findings. Please see Annex 4 of this research guide for a sample matrix linking questions to indicators and research goals.

Depending on your focus and interest, you may choose between open-ended questions or closed-ended survey-type questions.

i. Open-ended questions

Open-ended questions allow respondents to answer on their own terms and allow researchers to hear and see things from the respondent's perspective. These types of questions cannot be answered with a simple 'yes' or 'no' response. They are useful for exploring new areas or issues in which the researcher has limited knowledge. However, administering open-ended questionnaires can be time-consuming and requires well-trained data collectors. Additionally, analyzing the data from open-ended questions can be difficult due to the unstructured nature of the responses.

ii. Close-ended questions

On the other hand, close-ended questions require respondents to answer with either 'yes' or 'no' or by selecting from a limited number of options. These questions are easy to administer, and the data generated is quantitative and reliable. Close-ended questions have a list of pre-determined answers that respondents must choose from. These types of questions are easy to analyze, and researchers can create charts, graphs, and other infographics to illustrate responses. However, close-ended questions lack nuance and context and can easily result in the misrepresentation of responses if the questions are not carefully designed.

Consider the examples in the box below:

Open-ended questions:

- What do you think are the biggest challenges faced by women in accessing justice in Afghanistan?
- In your experience, how do cultural beliefs and traditions impact women's ability to access justice in Afghanistan?
- How do you think the Afghan government can improve access to justice for women in the country?

Closed-ended questions:

- Have you ever faced gender-based discrimination or violence in a legal context in Afghanistan?
    - Yes
    - No
- Do women in Afghanistan have equal access to justice as men?
    - Agree
    - Disagree
    - Not sure
- Which of the following factors do you think are the biggest barriers to women's access

to justice in Afghanistan?
- Lack of legal knowledge
- Financial barriers
- Cultural barriers
- Geographic barriers

iii. The wording of the questions

Word choice is crucial at this stage of developing data collection tools for research, as it directly impacts the type of data obtained. Ensure that your questions use clear and understandable language, and consider the education level of your research population to avoid potential biases or offensive language that may affect respondents' interpretations.

Let us discuss the wording of the questions with the following example.

Original question: "Do Afghan women trust CSOs to advocate for their rights?"

Revised question with improved word choice: "What are Afghan women's perceptions of the role of CSOs in advocating for their rights?"

Explanation: The original question assumes trust in CSOs without considering potential nuances or complexities in Afghan women's perceptions. It also implies a direct link between CSOs and their rights, which may not accurately reflect the multifaceted nature of the topic. In contrast, the revised question with improved word choice asks for Afghan women's perceptions, allowing for a more open and nuanced response. This can provide a more accurate understanding of Afghan women's perspectives on the role of CSOs in advocating for their rights without imposing any preconceived notions or biases.

Like the above example, you may come across instances where your word selection can inadvertently introduce bias, complexity or influence respondents' responses. To help you realize these pitfalls, see the box below for common mistakes in word choices.

Using biased language: Researchers may use language that carries implicit biases, assumptions, or loaded terms that can influence respondents' perceptions and responses. For example, using words like "best," "worst," "successful," or "failure" can introduce bias and lead to subjective responses.

Using vague or ambiguous language: Researchers may use language that is unclear, imprecise, or open to multiple interpretations, leading to inconsistent or unreliable responses. For example, using words like "often," "sometimes," or "occasionally" can be subjective and lack specificity, resulting in varied responses.

Using jargon or technical terms: Researchers may use specialized jargon or technical terms that may not be familiar or understandable to respondents, leading to confusion or misinterpretation of questions. Using plain and simple language that is easily understandable to the target population is crucial for obtaining accurate and reliable responses.

Using leading or suggestive language: Researchers may use language that prompts or influences respondents towards a particular response, leading to biased or distorted data. For example, using words like "don't you agree," "shouldn't we," or "isn't it obvious" can guide

respondents towards a certain response rather than allowing them to provide their genuine opinions or experiences.

Using double-barreled questions: Researchers may combine multiple questions or concepts into a single question, leading to confusion and difficulties in respondents providing accurate responses. For example, asking, "Do you like the quality and price of the product?" combines two separate concepts and may result in ambiguous or inconsistent responses.

iv. Order of questions

The order of questions in a research questionnaire is crucial as it can impact the quality and reliability of the data collected. Listed below are common points to consider in order of your questions.

- **Priming effect:** This refers to the phenomenon where the order of questions can influence respondents' subsequent responses. For example, if a researcher asks a series of positive questions before asking a negatively framed question, it may bias the respondents' responses toward the negative end.
- **Contextual relevance:** The order of questions can affect the context in which respondents interpret and answer subsequent questions. Asking general or broad questions before specific questions can provide a context for respondents, helping them better understand and answer the specific questions.
- **Respondent fatigue:** The order of questions can impact respondents' fatigue or boredom during a survey. Placing complex or lengthy questions at the beginning of the survey may result in respondents feeling fatigued, leading to lower-quality responses or even dropout rates.
- **Interviewer bias:** In some cases, the order of questions can impact the interviewer's behavior, potentially leading to interviewer bias. For example, if sensitive or controversial questions are asked early in the survey, it may affect the interviewer's tone, behavior, or subsequent questions, leading to biased responses.
- **Survey flow:** The order of questions should follow a logical flow to ensure that respondents can understand and follow the progression of ideas or concepts. Inconsistent or illogical question sequencing may result in confusion, inconsistency, or missing responses.

2. Translating questionnaires

In some cases, you will need to translate questions into local languages spoken in the study area. It is a critical stage of your research assignment because incomplete or inaccurate translation can result in loss of the research scope and change the meaning of questions regardless of how carefully you have designed your questions in the source language. You should take the following steps to ensure a quality translation of your research questions.

Work with a professional translator: If possible, you should work with a professional translator who has sector-specific knowledge or experience, or you should provide adequate orientation to the translator on key technical terms and definitions. This is important because the translator needs to understand the context and purpose of your research and the technical terminology used in your questions.

Choose native speakers: If you are going to translate your questionnaire into local languages, make sure your translators are native speakers of that language. This is important because nuances of meaning and cultural context can be lost in translation, so it is best to have someone who is familiar with the language and culture to ensure accurate translation.

Back translation: Once translated, it is often recommended to do a back translation of the questionnaire into the original language and compare the versions for differences. This helps to ensure that the translation accurately reflects the original wording and meaning of the questions.

Piloting and testing: After translating your questionnaire, it is essential to pilot and test it with a small sample of respondents to ensure that the translated questions are clear, understandable, and relevant to the local context. This can help identify any issues with the translation and allow for adjustments to be made before the full survey is conducted.

Cultural adaptation: It is also important to consider cultural adaptation in the translation process. Certain words, phrases, or concepts may not have the same meaning or relevance in different cultures, so the translation needs to take this into account. Working with local experts or community members can be helpful in ensuring that the translated questions are culturally appropriate and relevant.

3. Consider coding and analysis

When developing data collection questionnaires, considering coding and analysis involves planning ahead to ensure that the data collected can be effectively coded and analyzed during the data analysis stage. Here are some ways to consider coding and analysis while designing your questionnaires:

Define response options for closed-ended questions: Closed-ended questions, which have predefined response options, are easier to code and analyze as they yield structured data. When designing closed-ended questions, carefully define and develop response options that are clear, comprehensive, and mutually exclusive. This ensures that the data collected can be easily coded and analyzed by assigning numerical or categorical codes to the response options for quantitative analysis or grouping them for qualitative analysis.

Set guidelines and instructions: Clear guidelines and instructions in the questionnaire can help respondents provide accurate and consistent answers. This is important for coding and analysis as it ensures that the data collected is reliable and can be easily interpreted during analysis. Guidelines and instructions can include information on how to interpret questions, how to select response options, and how to provide accurate and complete answers. This helps in standardizing the data and makes the coding and analysis process more efficient.

Use skip-logics or branching: Skip-logics or branching is a technique used to direct respondents to skip irrelevant questions based on their previous answers. This helps in collecting relevant data and avoids unnecessary data clutter. By skipping irrelevant questions, the data collected is more focused and can be efficiently coded and analyzed. Skip logics can be implemented in the questionnaire design by routing respondents to different sections or skipping certain questions based on their previous responses, making the data analysis process more streamlined.

Organize questions logically: The organization of questions in the questionnaire should be logical and coherent. This helps in efficient coding and analysis as it ensures that the data is collected in a structured manner.

For example, starting with general questions and gradually moving to specific questions or organizing questions by topic or theme can make the data analysis process smoother and more systematic.

Here are some examples of research questions using skip logic:

Q 1. Have you or anyone in your family ever been a victim of violence or abuse?
- a. Yes [if yes, please specify the type of violence/abuse and the relationship with the perpetrator]
- b. No [If no, please skip to question 5.]

Q 2. Have you or anyone in your family ever had to seek justice for a legal matter?
- a. Yes [If yes, please specify the type of legal matter and the outcome of the case.]
- b. No [If no, please skip to question 5.]

Q 3. Do you think the justice system in Afghanistan is fair and impartial?
- a. Yes [If yes, please skip to question 5.]
- b. No [If no, please explain why you think it is not fair and impartial.]

Q 4. Have you or anyone in your family ever been denied access to justice due to discrimination?
- a. Yes [If yes, please explain the type of discrimination and the outcome of the case.]
- b. No [If no, please skip to question 5.]

Q 5. What improvements do you suggest for the justice system in Afghanistan to better serve women and marginalized communities?

Here is another example of how using skip-logic help in arranging the flow of data collection tools.

Q 1. Are you currently employed?
- Yes [if yes, ask Q2)
- No [ask Q3]

Q2. If yes, please select the type of your employment from the following list.
- Full time
- Part-time
- Internship
- Volunteer

Q3: If no, how do you earn your livelihood? (Please select all relevant options from the following)
- I am the owner of an SME – small and medium enterprises
- I work on my own land
- I receive remittance
- Others in my family work – so I do not have to
- Other (please specify)
- Refused to answer

4. Piloting and Testing

Testing and piloting your research questionnaire or tools is a necessary step for ensuring the suitability and functionality of your research tool. The benefits of piloting your research tools include:

- Identifying the time required for each survey or interview and planning your research efficiently.
- Identifying sensitive questions or phrases that may make respondents feel uncomfortable.
- Identifying questions that are not easily understood due to complex structures, poor word choices, or confusing positioning.
- Identifying questions or structures in the questionnaire that are confusing to the respondent and may require better explanation or guidance.
- Analyzing the flow of the questionnaire, assessing the arrangement of questions, and shuffling them for better fluency.

Remember to pilot your research questionnaire under conditions that resemble actual field conditions. This means selecting participants and an environment that is similar to the actual study conditions. If you are conducting a survey, it is recommended to select a similar sample size. Allocate enough time to hear feedback from your pilot participants and closely observe their reactions to the wording, structure, provided options, and flow of questions. If your research questions need to be translated into local languages, observe participants' reactions to the questions and their responses because the original language and translated versions may differ. It is also recommended to allow time for incorporating changes in the research questionnaire.

After following the steps outlined above, you should now have data collection tools/questionnaires that are ready to be deployed in the field. However, note that even after completing these steps, you may still identify areas that require improvement, errors that need to be fixed, or new information that needs to be added. Therefore, maintain an open mind and be prepared to adjust your research questions based on the nuances you encounter in the field.

Important Considerations for Developing Research Questions

1. Qualitative Questions

While the steps above provide a general overview of the stages involved in developing research data collection tools, the following list compiles a set of best practices and recommendations for specific types of data collection tools that you may need to develop as part of your research project. This includes important considerations for developing qualitative tools such as in-depth interviews and group discussions, as well as quantitative tools like surveys. (Refer to Chapter 2 for a more detailed discussion on types of interviews).

When developing an **in-depth interview** data collection tool, listed below are key points to consider to ensure that the tool is effective in collecting the data you need.

- Decide on the format of the interviews, such as face-to-face, phone, or online, and develop the data collection tool accordingly. Consider the strengths and limitations of each format and choose the one that best fits the research objectives and the characteristics of the participants.
- Develop a comprehensive interview guide that includes a list of open-ended questions, prompts, and probes. The interview guide should provide a flexible framework for the interview while allowing for spontaneous follow-up questions based on participants' responses.
- Use clear and concise language in the interview questions and prompts to ensure that participants understand the questions and can provide accurate and meaningful responses. Avoid using jargon or technical terms that may confuse participants.
- Avoid leading questions that may bias participants' responses. Leading questions can influence participants' opinions or guide them toward certain responses. Use neutral language and avoid suggesting answers to the questions.
- Develop a logical flow of questions in the interview guide that allows for a coherent and organized conversation. Start with general or introductory questions and gradually move towards more specific or sensitive topics. Consider the natural progression of the conversation and how one question leads to the next.
- Include probing techniques in the interview guide to encourage participants to elaborate on their responses, clarify their thoughts, and provide more in-depth information. Probing techniques can include asking for examples, asking participants to explain their reasoning, or asking them to reflect on their experiences.
- Consider ways to engage participants and build rapport during the interview to encourage open and honest responses. Use active listening skills, show empathy, and create a non-judgmental environment that allows participants to share their perspectives freely.

When developing a **group discussion** data collection tool, in addition to the above-mentioned points, consider the below-listed points to ensure that the tool effectively captures the data you need.

- Consider the characteristics of the participants, such as their demographics, background, and experiences, when developing the data collection tool. The questions should be relevant and appropriate for the target audience to encourage open and honest responses.
- Use open-ended questions to encourage participants to share their perspectives, provide rich and qualitative data, and capture the nuances of their responses.
- Develop a logical and sequential flow of questions that allows for a smooth and coherent discussion during the focus group session. Start with general or introductory questions and gradually move towards more specific or sensitive topics.
- Incorporate flexibility in the data collection tool to allow for spontaneous discussions and follow-up questions based on participants' responses. This will enable you to capture unexpected insights and delve deeper into interesting areas of discussion**.**

2. Quantitative Questions

When developing a quantitative data collection tool, such as a survey, listed below are key points to consider to ensure that the tool is effective in collecting the data you need.

- Define the target population for the survey and ensure that the survey questions are relevant and appropriate for the characteristics of the population. Consider factors such as age, gender, education level, and cultural background when designing the survey.
- Decide on the format of the survey, such as online, paper-based, or telephone, and develop the data collection tool accordingly. Consider the advantages and limitations of each format and choose the one that best fits the research objectives and the characteristics of the target population.
- Use clear and concise language in the survey questions and response options to ensure that participants understand the questions and can provide accurate and meaningful responses. Avoid using jargon or technical terms that may confuse participants.
- Use appropriate question types in the survey, such as closed-ended questions (e.g., multiple choice, Likert scale). Ensure that the response options are comprehensive and mutually exclusive for closed-ended questions.
- Use neutral language and avoid using loaded or leading words that may sway participants' opinions or guide them toward certain responses.
- Develop a logical flow of questions in the survey that follows a clear and organized structure. Start with general or introductory questions and gradually move towards more specific or sensitive topics. Consider the natural progression of the survey and how one question leads to the next.
- Incorporate skip patterns or branching logic in the survey to ensure that participants are directed to relevant questions based on their responses. This can help minimize participant burden and improve data accuracy.
- Ensure that the survey questions are valid and reliable measures of the concepts or variables of interest. Use established measures or pre-test the survey with a small group of participants to assess the validity and reliability of the questions.
- Keep the survey length reasonable and avoid unnecessary complexity in the questions. Long and complex surveys can result in participant fatigue, lower response rates, and potentially inaccurate or incomplete data.

Paper vs. Electronic Data Collection Tools

As we wrap up this chapter on data collection tools, let us now delve into a discussion on the two main types of data collection tools based on their format of application: paper-based and electronic. These two methods are commonly used to gather information for research or surveys, but they differ in how data is collected, stored, and processed.

Paper-based methods involve physical forms that are filled out by hand and manually entered into a database. Electronic methods capture data digitally and store it electronically for faster processing and analysis. Electronic data collection generally offers higher accuracy, efficiency, and accessibility, while paper-based methods may be suitable for situations with limited technology or internet access.

To elaborate on the usage and differences of each type, consider an example of conducting a health survey in Afghanistan.

In a rural area of Afghanistan with limited access to technology and the internet, a team of researchers may opt for paper-based data collection. They would design paper questionnaires with health-related questions, print multiple copies, and distribute them to community health workers who would visit households to administer the surveys. The community health workers would fill out the questionnaires by hand, asking questions to participants and recording their responses on paper forms. Once all the questionnaires are completed, they will be collected and transported back to the research team for manual data entry into a database for analysis.

This method may be time-consuming, labor-intensive, and prone to data entry errors due to several reasons:

Manual data entry: After the paper questionnaires are completed by community health workers, they need to be collected and transported back to the research team for manual data entry into a database. This process involves the transcription of data from paper forms into digital format, which can be time-consuming and labor-intensive, especially if there are a large number of questionnaires to be entered.

(We will discuss this step in the next chapter in much detail, but it is mentioned here to make the point about labor required in manual data entry.)

Potential errors in data entry: Manual data entry is also prone to errors, such as typographical mistakes, transcription errors, or misinterpretation of handwritten responses. These errors can introduce inaccuracies in the data, leading to compromised data quality and potentially affecting the validity and reliability of research findings.

Transportation challenges: Transportation of completed paper questionnaires from remote rural areas to the research team can be logistically challenging in Afghanistan or other similar settings with limited infrastructure and connectivity. Delays or loss of questionnaires during transportation can further prolong the data collection process and increase the risk of data loss or damage.

Data storage and management: Managing and storing paper questionnaires can also be cumbersome, requiring physical storage space, protection from environmental factors, and careful organization to prevent loss or damage. Retrieving and referencing specific questionnaires for analysis may also be time-consuming.

Limited real-time data access: With paper-based data collection, researchers may not have real-time access to the collected data, as the questionnaires need to be manually entered into a database before analysis can take place. This may delay the availability of results and hinder timely decision-making or interventions based on the findings.

On the contrary, let us consider conducting electronic surveys in a more urban area of Afghanistan with better technology infrastructure. The researchers could design an electronic questionnaire using a data collection software or mobile app and install it on tablets or smartphones. The

community health workers would then visit households with electronic devices, input data directly into the electronic questionnaire, and submit it electronically to a centralized database. The data would be instantly stored electronically, and the research team could access and analyze the data in real time, potentially saving time and reducing errors associated with manual data entry.

When deciding between paper-based and electronic data collection methods in Afghanistan or any other setting, researchers would need to consider various factors such as the availability of technology and internet access, resources and infrastructure, research goals, participant engagement, and literacy levels, data security and privacy requirements, and data processing needs. For example, if internet access is limited, paper-based methods may be more feasible. However, suppose efficiency and accuracy are a priority. In that case, electronic data collection methods may be more suitable, especially in areas with better technology infrastructure.

Key Points

In summary, the main takeaways from this chapter are:

There are, in general, two types of questions to consider in developing your data collection tools – open-ended and close-ended.

- Open-ended questions allow respondents to answer in their own terms, providing rich qualitative data and capturing nuances and unique perspectives.
- Open-ended questions are useful for exploring new areas or issues where the researcher has limited knowledge.
- Administering open-ended questionnaires can be time-consuming and may require well-trained data collectors.
- Analyzing data from open-ended questions can be challenging due to the unstructured nature of responses.
- Close-ended questions require respondents to choose from predefined options, resulting in quantitative and reliable data.
- Close-ended questions are easy to administer, save time, and produce consistent answers.
- Close-ended questions are easier to analyze and present using visual aids.
- Close-ended questions may lack nuance and context and can result in misrepresentation of responses if not carefully designed.
- Researchers need to weigh the advantages and disadvantages of each type of question to select the one that best meets their research objectives.

Developing effective questionnaires is a critical aspect of data collection. The following steps can help ensure that your research tool is reliable and effective:

- **Step 1** - Drafting questions: pay close attention to the wording and phrasing of your questions. Use simple and concrete language and avoid potentially biased or offensive language. Consider the logical flow of your questions, starting with general inquiries before moving on to specifics.
- **Step 2** - Translating questions: if your research is multilingual, it is essential to work with a professional translator who is fluent in both languages. Once translated, back-translate the questionnaire to ensure the accuracy of the translation.
- **Step 3** - Considering coding and analysis: If your research covers multiple provinces and has multiple questionnaires, organize your questions in an orderly and logical way. Include hints for possible analysis approaches in the future.
- **Step 4** - Testing your questions: to ensure the effectiveness of your research tool, test your questionnaire in conditions similar to the actual field. This will help you identify any issues and make necessary adjustments before launching the research.

Key points to consider for qualitative and quantitative questions:

Qualitative Questions:

- Develop a comprehensive guide with open-ended questions, prompts, and probes.
- Use clear and concise language, avoiding jargon or leading questions.
- Create a logical flow of questions, starting with general and moving to specific topics.

- Include probing techniques to encourage elaboration and reflection.

Quantitative Questions:

- Define the characteristics of the population and design questions accordingly
- Decide on online, paper-based, or telephone surveys based on research objectives and population characteristics.
- Develop a logical flow of questions and incorporate skip patterns or branching logic.
- Ensure questions are valid and reliable, pre-test with a small group of participants.
- Keep the survey reasonable in length and avoid unnecessary complexity.

In terms of format, data collection tools are:

Paper-Based Data Collection:

- It involves physical forms filled out by hand and manually entered into a database.
- It may be suitable for situations with limited technology or internet access.
- It can be time-consuming, labor-intensive, and prone to data entry errors.
- Transportation of completed forms can be logistically challenging.
- Requires physical storage space and careful organization.
- It may not provide real-time access to data, delaying the availability of results.

Electronic Data Collection:

- Captures data digitally and stores it electronically for faster processing and analysis.
- Offers higher accuracy, efficiency, and accessibility.
- Allows for real-time access to data, potentially saving time and reducing errors.
- Requires technology infrastructure and internet access.
- It may be more suitable for areas with better technology infrastructure.

Checklist

When designing your research questionnaires/data collection tools, you should feel confident about answering 'yes' to the following questions:

1	Have you clearly defined the research goals and objectives?	☐
2	Have you chosen appropriate data collection methods based on your research design?	☐
3	Have you designed well-structured and clear questions?	☐
4	Have you considered participant characteristics, such as demographic profile, cultural background, and language preferences, when designing your data collection tools?	☐
5	Have you incorporated measures to ensure data quality, such as validation checks and skip patterns?	☐
6	Have you ensured that your data collection tools comply with ethical guidelines for research, including informed consent, privacy, and confidentiality?	☐
7	Have you conducted a pilot test of your data collection tools and made necessary revisions based on the findings?	☐

Further Readings

- The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response: https://spherestandards.org/handbook/
- The Demographic and Health Surveys (DHS) Program: https://dhsprogram.com/
- World Health Organization (WHO) Research Methods: https://www.who.int/ethics/research/en/
- United Nations Development Programme (UNDP) Research and Data Collection: https://www.undp.org/content/undp/en/home/ourwork/povertyreduction/focus_areas/governance_democratic/participatory_governance/research-and-data-collection.html
- The World Bank Data and Research: https://www.worldbank.org/en/data-and-research

CHAPTER 10: DEVELOPING RESEARCH DATABASE

Contents

This chapter provides an overview of building a database for research projects. It covers various features, usability, advantages, and disadvantages of commonly used databases. The chapter includes:

- The importance of building a database for research data.
- Considering the type of database for your research project.
- Types of databases available for researchers, such as KoBo, ODK, Google Forms, and Excel.
- Features, advantages, and disadvantages of each database platform.
- Useful links and learning materials for each discussed platform.

Overall, this chapter aims to equip researchers with the knowledge needed to select the appropriate platform for their research and successfully build a database for their project. By reading this chapter and exploring the educational content provided, researchers will be better equipped to make informed decisions about the best database platform for their research.

Database for Research Data

When conducting a survey, whether it is paper-based or digital (tablet/phone), you will need to design a database. In simple terms, your database will record and sort the data that you will gather. Depending on the scope and complexity of your research, you may require a complex or simple database. A well-designed database can make storing, sorting, cleaning, and analyzing data much easier and more efficient.

When choosing software for your database, several factors, such as research design, budget, and complexity, need to be considered. There are various tool designs and data management platforms available, particularly in humanitarian and development projects, which either provide free services or charge minimal amounts. Some examples include:

- Open Data Kit (ODK): This is a free and open-source tool for collecting, managing, and using data in resource-constrained environments. ODK is widely used for surveys, monitoring and evaluation, and research in humanitarian and development projects.
- KoBo Toolbox: KoBo Toolbox is a cloud-based platform that allows users to collect, manage, and analyze data in real time. It is used by various organizations for monitoring and evaluation, impact assessment, and research.
- Google Forms: Google Forms is a free and user-friendly tool for creating surveys and collecting data online. It is commonly used by researchers to collect data from participants remotely.
- Microsoft Excel: Excel is a popular software tool for data management and analysis. It can be used to create and manage a database and perform basic statistical analysis.

Choosing the right software tool for your database is central to ensuring the quality and accuracy of your data. The tools listed above are just a few examples of the available options, and the best tool for your research will depend on the specific needs of your project.

There are two main ways to build forms using these platforms:

Build a form online: This option involves using the form builder to create an online form with automated features. After inputting project details, you can design and customize the form to fit your data collection needs.

Upload an existing form: You can also upload a pre-designed form using XLSForm in MS Excel. This is a useful option if you have already created a form that you want to use or if you prefer to create forms offline in Excel.

Once your form is ready, you can share it online or download it onto mobile devices for use in data collection. These applications allow you to record and store data on mobile devices, even when an internet connection is not available. Once a connection is established, the data can be sent to the servers for storage and analysis.

Here are some useful links for developing and building forms:

Using XLS forms:

- XLSForm.org: http://xlsform.org/

- KoBoToolbox Help Center - Creating Forms: https://support.kobotoolbox.org/create-forms/
- ODK XLSForm Tutorial: https://docs.opendatakit.org/form-design-xlsform/
- Formhub XLSForm Tutorial: http://formhub.org/xlsform/

Building forms:

- Kobo Toolbox Form Building Tutorial: https://support.kobotoolbox.org/form_design/build/
- ODK Form Building Tutorial: https://docs.opendatakit.org/form-design/
- Formhub XLSForm Tutorial: https://formhub.org/2013/07/12/getting-started-with-xlsforms/

In the sections below, we will provide a detailed discussion of the recommended data collection platforms. We will start by introducing their key features and then evaluate their advantages and disadvantages from a user perspective.

1. KoBo Toolbox

KoBo is a digital data collection platform that is free to use and is funded through grants and donations. It is designed primarily for use by aid workers, researchers, and those working in humanitarian crises. The platform is based on the Open Data Kit and is very intuitive, offering comprehensive data collection capabilities as well as basic mapping and analysis features.

Advantages of using KoBo:

- One of the main advantages of KoBo is that it is based on Open Data Kit, making it free to use for anyone who needs it.
- The platform can be used with an Android app or web forms, which are both very user-friendly.
- The form builder is simple and straightforward, and users can easily create conditional logic, skip functionality, and validation criteria to ensure accurate data collection.
- KoBo also offers offline functionality, which is particularly useful in areas where internet connectivity is limited.

Another advantage of KoBo is its support for multilingual forms, software, and non-Latin scripts, making it accessible to users around the world. Additionally, KoBo supports various data types, including images, audio, video, scanner, and GPS, which can be useful for capturing different types of data in the field.

There are also some **disadvantages** to using KoBo:

- It only works with Android devices and does not have an iOS app for use on Apple devices. This may limit its accessibility to some users who prefer to use iOS devices.
- KoBo has limited data analysis capacity, which means that users may need to export their data to other tools for more in-depth analysis.
- KoBo may not be compatible with newer phones or software, which could lead to technical issues.

- KoBo has a limit of 1500 data submissions (e.g., surveys) per month, which could be a limiting factor for larger projects.

In summary, KoBo is a user-friendly and effective mobile data collection platform that is particularly useful for those working in humanitarian crises or conducting research in resource-constrained environments. Its support for various data types and multilingual forms makes it accessible to users around the world, and its offline functionality enables users to collect data even in areas with limited internet connectivity. While there are some limitations to using KoBo, it remains a popular choice among researchers and aid workers.

Here are some useful links and guidelines for using KoBo:

- KoBo Toolbox Website: https://www.kobotoolbox.org/
- KoBo Toolbox Documentation: https://support.kobotoolbox.org/
- KoBo Toolbox YouTube Channel: https://www.youtube.com/channel/UCP_h85pEFvS5nDYyoGdTLYQ
- KoBo Toolbox Community: https://community.kobotoolbox.org/
- Guidelines for using KoBo in emergencies: https://www.kobotoolbox.org/emergency-response/
- KoBo Toolbox Data Analysis Guide: https://support.kobotoolbox.org/data-analysis/

2. Open Data Kit (ODK)

Open Data Kit (ODK) is a set of free and open-source tools that enable users to author, implement, and manage mobile data collection solutions. ODK tools are highly customizable, and there is an active support community for users. The platform supports various data types, including images, audio, video, scanner, and GPS. Additionally, ODK offers online/offline functionality and multilingual support for forms and non-Latin scripts. The platform also provides skip logic and data validation features, making data collection more efficient and reliable.

However, it is worth noting that the ODK form builder has a higher learning curve and may require users to be familiar with programming. Translations of each question (i.e., Dari and Pashto) must be supplied to use the multilingual feature, which can add to the complexity of data collection. Organizations are also responsible for hosting their data on their own servers, which can be a disadvantage for those without dedicated technical support. Although ODK is a free and powerful option, the lack of dedicated support and relative difficulty in use may not make it the best choice for organizations with limited capacity or more specific data collection needs.

Advantages of using ODK:

- It is an open-source platform.
- It supports various data types, including images, audio, video, scanner, and GPS.
- It has an active support community for users.
- It offers form builder functionality.
- It provides online/offline functionality.
- It supports multilingual forms and non-Latin scripts.
- It offers Android app and webforms.
- It also provides skip logic and data validation features.

Disadvantages of using ODK:

- It requires a higher learning curve to build a form.
- It requires familiarity with programming.
- You must also translate the questions to use the multilingual feature.
- It has a self-hosted and managed server.
- It has no dedicated support for users.

Here are some additional resources for those interested in learning more about ODK:

- ODK website: https://getodk.org/
- ODK documentation: https://docs.getodk.org/
- ODK forum: https://forum.getodk.org/
- ODK central for data hosting: https://odkcentral.opendatakit.org/

3. Google Forms

Google Forms is a free online survey tool provided by Google that is accessible with a Google account. It is a popular tool for creating simple surveys and small-scale assessments, such as training needs assessments, post-training satisfaction assessments, and quizzes. Google Forms is very versatile and easy to use, and its automatic logic frames minimize errors. However, its use is mainly limited to small-scale data collection.

Advantages of using Google Forms:

- It is free to use and accessible with a Google account.
- Automatic logic frames minimize errors in data collection.
- Supports multilingual forms and can be easily shared with collaborators.
- Simple to use with many ready-made features.

Disadvantages of using Google Forms:

- Does not support advanced data collection features such as GPS, photo capture, video recording, etc.
- It cannot be used in offline mode, requiring internet connectivity for data collection.
- The logic structure of Google Forms is limited and does not allow advanced features such as skip logic and advanced conditional branching.

Here are some links for those interested in learning how to use Google form:

- Google Forms Help Center: https://support.google.com/docs/topic/6063586?hl=en&ref_topic=6063584
- Google Forms Tutorial for Beginners: https://www.youtube.com/watch?v=8x7wqckvL-8
- Google Forms Cheat Sheet: https://www.customguide.com/wp-content/uploads/2017/08/google-forms-cheat-sheet.pdf
- Google Forms Webinar: https://www.youtube.com/watch?v=SIgdK5C75UI
- Google Forms Templates: https://www.google.com/forms/about/#templates

4. Microsoft (MS) Excel

MS Excel is a popular data collection tool that can be used in two formats. The web-based format requires the data collector to be connected to the internet, while the offline version is typically used as a secondary "data entry" platform for creating a dataset after paper-based data collection for data cleaning, processing, and analysis.

Although data collection or entry in Excel can be time-consuming and highly prone to human error, once the data has been entered into Excel from paper, it can be processed and analyzed with relative ease. Excel's built-in tools and features, such as pivot tables and charts, can help researchers visualize and analyze data in various ways. However, Excel is not as robust as other data collection and analysis tools, and it may not be suitable for complex or large-scale research projects.

Note that using Excel for data collection requires careful planning and organization to ensure accurate and efficient data entry. Researchers should establish clear data entry protocols and perform regular quality checks to minimize errors and ensure the integrity of the data.

Advantages of using Excel:

- Widely available and familiar to many users.
- Allows for manual data entry and easy formatting.
- Provides basic analysis functions such as sorting, filtering, and pivot tables.
- Can handle a large amount of data.
- An offline data entry option is available.

Disadvantages of using Excel:

- Prone to human error during manual data entry.
- Limited functionality for complex analysis.
- Lack of data validation and quality control checks.
- Not ideal for real-time data analysis and monitoring.
- Requires advanced knowledge of more advanced analysis techniques.

Here are some useful links if you are interested to learn more about designing databases in Excel:

- Microsoft Excel Tutorial for Beginners: https://www.youtube.com/watch?v=Vl0K-uUYyGI
- Excel Data Entry and Update Forms: https://www.youtube.com/watch?v=glz1gJYI8Wg
- Data Collection and Analysis with Excel: https://www.coursera.org/learn/data-collection-analysis-excel
- How to Build an Excel Database: https://www.techwalla.com/articles/how-to-build-an-excel-database
- Excel Basics for Data Collection: https://www.nyu.edu/about/policies-guidelines-compliance/information-technology-policies/data-management-plan/excel-basics-for-data-collection.html

Key Points

In summary, the main takeaways from this chapter are:

- Determine the purpose of your data collection and the variables you need to measure.
- Choose a digital data collection platform that fits your needs, such as KoBo or ODK.
- Decide whether to build a form online or upload an existing form using XLSForm.
- Use the form builder or XLSForm to create your form and add relevant questions and answer choices.
- Digital platforms allow you to collect data from anywhere at any time, as long as you have an internet connection. This can be especially useful for remote areas or populations that are difficult to reach.
- Digital data collection platforms have built-in features such as skip logic, data validation, and error checking, which can improve the accuracy and completeness of your data.
- Digital data collection platforms allow you to manage and organize your data more efficiently.
- Some digital platforms require technical skills to design and implement the survey or data collection form. Make sure you have the necessary technical skills or have access to technical support if needed.
- Choose a platform that is user-friendly and easy to use for both the data collectors and respondents.

Checklist

When preparing for building a database, either using available online tools or excel, you should feel confident about answering 'yes' to the following questions /statements.

1	Have you clarified the purpose of your survey and the type of data you need to collect?	☐
2	Have you selected a digital platform to use for your survey?	☐
3	Have you decided whether to build the form online or upload an existing form using XLSForm in Excel?	☐
4	Have you specified major fields to include in your form and what types of questions will you ask?	☐
5	Have you structured your questionnaire to use skip logic/skip patterns?	☐
6	Have you selected what types of answer options will you include? (e.g., multiple choice, open-ended, or Likert scales)	☐
7	Will you pilot test your form with a small group to ensure it works as intended?	☐

Further Readings

- Microsoft Excel Training: https://support.microsoft.com/en-us/office/excel-training-9bc05390-e94c-46af-a5b3-d7c22f6990bb
- Google Forms Help Center: https://support.google.com/forms/?hl=en#topic=9061546
- Qualtrics Support: https://www.qualtrics.com/support/
- Formstack Academy: https://www.formstack.com/academy/
- JotForm User Guide: https://www.jotform.com/help/
- Excel Easy: https://www.excel-easy.com/
- Udemy Excel Courses: https://www.udemy.com/topic/excel/
- Coursera Excel Courses: https://www.coursera.org/courses?query=excel

CHAPTER 11: PREPARING FOR RESEARCH DATA COLLECTION

Contents

This chapter provides guidance to researchers on preparing for research data collection. It covers the following topics:

- Guiding principles for evaluating your readiness to start data collection.
- Discussion on potential risks associated with fieldwork in challenging environments.
- Instructions on developing a work plan for data collection and assessing your resources.
- Recommendations on recruiting the right team members for your research data collection.
- Guidelines for training and preparing your team for data collection.

By going through this chapter, readers will be equipped to effectively assess their preparedness, evaluate and prepare for risks, manage their data collection timeline, recruit suitable team members, and train them for smooth data collection.

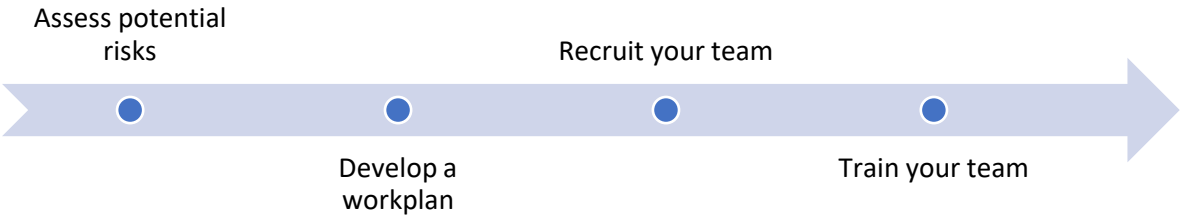
Prepare for Data Collection

Your data collection preparations should be informed by several factors, including the scope of your research, your sampling plan, and your desired geographical coverage. Depending on these factors, you may need to gather information about people's opinions, explore ideas, gain insights into a specific topic, or conduct a large-scale survey to better understand the socio-economic condition of a population. This could involve conducting interviews, surveys, or a combination of both.

As you plan your data collection, there are several key questions you should be able to answer, such as:

- What data will you collect?
- Who will collect your data?
- Where will you collect your data?
- How will you collect your data?
- When will you collect your data?

By addressing these questions, you can ensure that your data collection process is well-planned and effective, helping you to gather accurate and meaningful data for your research project.
The figure below illustrates key steps in preparing for your data collection.



1. Assess potential risks

In every activity, there is an element of risk that events will not proceed according to plan. A risk assessment aims to identify hazards to activities, their likely impact, and related consequences. It is the responsibility of the lead researcher (or whoever is managing the research) to identify the risks, put in place preventive measures, and minimize their potential impact.

Risks in terms of impact can be categorized into three forms:

Schedule-related risks: These are risks that can potentially disrupt the planned timeline and schedule of the research project. This can include delays in data collection, analysis, reporting, or other project activities, which may impact the overall progress and completion of the project.

Resource-related risks: These are risks that may require additional resources, such as funding, personnel, equipment, or other assets, to be allocated in order to mitigate or manage the risk effectively. This can include unexpected costs or resource constraints that may arise during the course of the research project, leading to increased expenditure or utilization of resources.

Project failure-related risks: These are risks that could potentially result in the failure of the entire research project. This can include risks that threaten the validity, reliability, or

generalizability of the research findings or risks that significantly undermine the achievement of the research objectives or outcomes.

To identify and manage the potential risks related to your research, consider the following steps:

i. Identify risks in detail and seek input from experts

At this point, thoroughly identify potential risks in your research project, providing sufficient detail that enables actions to be considered. This may involve consulting with other researchers who have prior experience in conducting research in the same substantive area or researchers who have expertise in the methodology you plan to adopt.

To identify risks, consider all aspects of your research project, including the research design, data collection methods, sample characteristics, ethical considerations, and potential external factors that may impact the research process or outcomes. Take the time to thoroughly evaluate each aspect and identify potential risks that may arise.

Seeking input from experts, such as experienced researchers or methodological experts, can provide valuable insights and perspectives that may uncover risks that you may not have considered. These experts can also provide guidance on how to mitigate or manage identified risks based on their prior experience and expertise.

Document the identified risks in detail, including their nature, potential causes, and potential impacts. This will enable you to have a comprehensive understanding of the risks and facilitate discussions and decisions on appropriate risk management strategies. By being thorough in identifying risks and seeking input from experts, you can better anticipate and address potential challenges in your research project.

ii. Assess each risk in terms of its potential impact on the project

Evaluate each identified risk in terms of its potential impact on the overall project. Risks can have various types of impacts on a research project, which may include disruption of the project timetable and schedule, compromising the quality of the research, and increasing project costs.

When assessing the potential impact of a risk, consider the extent to which it could affect the project timeline and schedule. Will it cause delays in data collection, analysis, or reporting? Will it impact the planned milestones or deadlines? Understanding the potential impact on the project timeline and schedule will help you assess the urgency and severity of the risk.

Consider also the potential impact on the quality of the research. Could the risk compromise the validity, reliability, or generalizability of the research findings? How significant would the impact be in terms of the research outcomes and conclusions? Evaluating the potential impact on research quality will help you determine the significance of the risk in relation to the overall objectives of your research project.

Lastly, consider the potential financial impact of the risk. Could it result in increased costs, such as additional resources, equipment, or personnel? What would be the magnitude of the additional costs and how would it affect the project budget? Understanding the potential financial impact of the risk will help you evaluate the overall feasibility and sustainability of the research project.

By assessing each risk in terms of its potential impact on the project, you can prioritize and allocate appropriate resources for risk management strategies. This assessment will also help you make informed decisions on how to effectively address the identified risks and minimize their potential impacts on your research project.

iii. Assess each risk in terms of probability

Evaluate each identified risk in terms of how likely it is to occur during the implementation of your research project and when it could potentially occur. This assessment will help you gauge the level of risk you and your team may be exposed to, as well as the potential impact on the participants involved.

To assess the probability of a risk occurring, consider the likelihood of it happening based on available information and data. This could involve reviewing relevant literature, consulting with experts or stakeholders, or drawing on your own experience and expertise. Consider the factors or circumstances that could increase or decrease the probability of the risk occurring and try to estimate the likelihood as accurately as possible.

Additionally, consider the timing or occurrence of the risk. When could the risk potentially happen during the implementation of your research project? Is it more likely to occur at the beginning, middle, or end of the project? Understanding the timing of the risk can help you plan appropriate mitigation strategies and allocate resources accordingly.

By carefully assessing the probability of each risk and its potential timing, you can better understand the level of risk exposure for yourself, your team, and the participants in your research project. This assessment will serve as a foundation for developing appropriate risk management strategies to effectively mitigate, prevent, or accept the risks.

iv. Prioritize and rank risk

Prioritize risks and rank them according to each of the two criteria, impact and probability. A simple scoring system could be used to grade risks into 'high impact,' 'medium impact,' and 'low impact,' and in terms of probability, 'high likelihood,' 'medium likelihood,' and 'low likelihood'.

Sample of risk prioritization matrix

Potential risks for the project implementation	Low likelihood	Medium Likelihood	High Likelihood
Risk 1: Not able to find the target population for the qualitative interviews	Priority 3		
Risk 2: Severe weather could cause delays in reaching targeted locations		Priority 2	
Risk 3: The digitally recorded forms may not reach us on time due to a lack of network connectivity.			Priority 1

v. Identify a course of action

The next step after identifying and prioritizing the risks is developing a mitigation strategy. A plan to tackle the potential risks associated with a project is often called a 'contingency plan'. You can take the following actions to an identified risk:

Risk prevention: This involves identifying potential risks in your research project and taking proactive measures to prevent them from occurring. This could include not pursuing a particular element of your research project that carries a high level of risk.

For example, if a certain data collection method is known to be unreliable or unethical, you may choose not to use it in your research to prevent potential negative consequences. Risk prevention is about being proactive and taking preventive measures to avoid risks altogether.

Risk reduction: This involves taking steps to reduce the impact or likelihood of risk in your research project. This could include implementing mitigation measures or developing contingency plans.

For example, if a potential risk is related to participant dropout in your study, you could develop strategies to increase participant engagement and retention, such as offering incentives or improving communication. Risk reduction focuses on minimizing the severity or probability of risks so that their impact on the research project is minimized.

Risk acceptance: Sometimes, despite careful planning and mitigation efforts, certain risks may be unavoidable. In such cases, the best approach may be to accept the risks and be prepared to manage their consequences if they do occur. This could involve having a plan in place to address the risks and their potential impacts.

For example, if your research project involves sensitive topics and there is a risk of backlash or negative reactions from participants or stakeholders, you may have to accept that it could happen and be prepared to manage any potential fallout. Risk acceptance acknowledges that risks may be beyond the control and focuses on developing strategies to cope with them if they do arise.

vi. Assign responsibilities:

After identifying the risks and developing a mitigation plan, designate who in the research team is responsible for putting in place the appropriate action (this might be you if you are working alone). Your team members should be clear on the potential risks, potential impact, and required actions. If necessary, organize risk mitigation workshops and meetings to ensure your team members are well-informed. Conducting a pilot of your research topic in the field could be helpful at this point because it will help you realize the type of issues/risks you might face in actual research.

To summarize the discussions above, it is critical to have a risk management plan in place. You may want to budget for additional resources, consider alternative locations or participants, include a buffer in your sample, or communicate potential risks to your team or funding agency to avoid surprises.

Here is an example of how to manage risks for a research project in Afghanistan.

For example, let us say you are conducting a research project on the impact of conflict on children's education in four provinces of Afghanistan - Herat, Nangarhar, Kunduz, and Kandahar. You could identify the following potential risks:

- Security risks due to ongoing conflict and political instability in some provinces.
- Cultural sensitivities around interviewing children and women.
- Logistical challenges such as transportation and access to remote areas.
- Ethical considerations around informed consent and confidentiality.

To manage these risks, you could develop a risk management plan that includes strategies such as:

- Hiring local security personnel in areas where security risks are high –highly depends on your budget. If you have the budget to hire security personnel for your local researchers or if you have resources to send foreigners into the field.
- Working with community leaders to ensure cultural sensitivities are respected.
- Developing a detailed transportation plan that includes contingency plans for road closures or security incidents.
- Obtaining informed consent from parents or guardians of children participating in the study and ensuring their privacy and confidentiality.

Throughout the project, you would continuously monitor and evaluate risks and adjust your risk management plan as needed. By following this approach, you can help ensure the success of your research project while minimizing potential risks.

2. Develop a work plan and timeline

To help you plan your research activities, you can use a Gantt chart or work plan to visualize the timeline and dependencies of each activity. However, keep in mind that real-world research involves variables that may be beyond your control, such as the availability of participants, their willingness to respond to questions, and the reaction of local officials.

Here is a sample Gantt chart to help you plan your data collection activities:

Data Collection Activities	Responsible	Week 1	Week 2	Week 3	Week 4
Hire research team	HR Manager	✓	✓		
Procure mobile devices	Procurement Officer	✓	✓		
Arrange transportation and accommodation	Logistics Coordinator	✓	✓		
Coordinate with stakeholders	Project Manager	✓	✓		
Conduct pilot test	Research Team		✓		
Collect data in Province A	Research Team			✓	✓
Collect data in Province B	Research Team			✓	
Collect data in Province C	Research Team				✓
Collect data in Province D	Research Team				✓

This Gantt chart is just an example, and you can modify it based on your research requirements and timeline. By accounting for potential risks and being flexible in your approach, you can improve your chances of success in collecting valuable data in Afghanistan's challenging research environment.

3. Recruit data collectors

Once you have finalized your work plan and timeline for your research project, start thinking about recruiting your team for data collection. While following standard human resource recruitment procedures, there are some key points to consider when recruiting your data collectors:

Role and Responsibilities: Clearly define the roles and responsibilities of your data collectors based on the specific requirements of your research project. Clearly communicate the expectations, tasks, and responsibilities associated with the role to potential team members during the recruitment process.

Relevant Skills and Experience: Look for data collectors who possess relevant skills and experience that align with the research project's requirements. Consider their experience in data collection, as well as their technical skills, knowledge of research methods, and familiarity with the specific field of research.

Teamwork and Collaboration: Research projects often require teamwork and collaboration. Look for data collectors who have demonstrated the ability to work well in a team environment, communicate effectively, and collaborate with others. Assess their interpersonal skills and ability to contribute to a positive team dynamic.

Time Availability: Consider the time availability of potential data collectors when recruiting for your team. Ensure that they have the availability to commit to the research project's timeline and meet the required deadlines for data collection, management, and analysis tasks.

Ethical Considerations: Research projects must adhere to ethical guidelines and protocols. Look for data collectors who have a strong understanding of research ethics and can uphold ethical principles throughout the data collection process, including obtaining informed consent, maintaining confidentiality, and protecting the rights and welfare of research participants.

Language Skills: Depending on the research location and target population, language skills may be important. Consider data collectors who are proficient in the languages spoken in the research location or have the ability to communicate effectively with the target population. Language skills can facilitate communication and data collection in the field.

Local recruitment: It is recommended to recruit local data collectors as they are known and trusted by the community and can collect data more safely than outsiders. They are also better suited to understand the contextual nuances of responses and assess the reliability of the data received.

Gender considerations: Female data collectors should be recruited from the communities where they collect data for security and propriety reasons. Cultural norms should be respected by budgeting for the travel cost of a chaperone (Mahram) to accompany female researchers.

Additionally, recruiting a diverse research team with male and female researchers can ensure that male respondents are interviewed by male researchers and female respondents are interviewed by female researchers, taking into account gender-related considerations and cultural sensitivities.

4. Train your data collectors

When it comes to training your data collectors, it is crucial to ensure that they have a clear understanding of the research scope, goals, questions, and collection methodology. Here are some key points to consider in order to prepare for effective research training:

Finalize and Translate Data Collection Tools: Make sure that all data collection tools, such as surveys and interviews, are finalized and translated into colloquial languages before the training sessions. This will ensure that the researchers are familiar with the tools they will be using in the field.

Plan separate training sessions in local languages: Plan separate training sessions in Dari, Pashto, and other native languages of your data collectors. Consider adjusting the language of the training based on the location of your research. If the majority population in an area speaks Pashto or Dari, one language may be sufficient, but it is recommended to have training sessions in both languages to ensure comprehension.

Respect cultural norms: Plan separate training sessions for male and female participants to respect cultural norms. This will create a safe and inclusive learning environment for all researchers and ensure that they feel comfortable and engaged during the training.

Include practice sessions: Incorporate practice sessions for each topic covered in the training, such as one-to-one interviews, group work, or peer reviews of data collection tools. If possible, schedule a pilot test by taking the training participants on a field trip that resembles the same demographic structure of your sample size. This will allow them to practice conducting interviews or surveys under your guidance. After the pilot test, plan for a reflection and learning session to discuss areas that need improvement.

Consider training length: The actual length of training may vary depending on the complexity of the research tools, questions, and research scope. Ensure that the training provides enough time for researchers to thoroughly understand and practice the data collection process.

Take care of administrative tasks: Take care of administrative tasks before the last day of training to ensure that researchers are well-prepared for their fieldwork. This includes tasks such as preparing cash advances for travel expenses, distributing mobile phones/tablets (if digital data collection is involved), distributing field plans, and providing introduction letters and other necessary documents.

By following these key points, you can ensure that your researchers are well-prepared and equipped to collect data effectively and efficiently in the field. Proper training is essential for ensuring the quality and reliability of the research findings. Please see Annex 5 for a sample training agenda outlining the basic structure of research training.

Key Points

In summary, the main takeaways from this chapter are:

- Your research scope, sampling plan, and geographical coverage should inform your data collection preparations.
- When preparing for data collection, you try to get a clear understanding of:
    - What data will you collect?
    - Who will collect your data?
    - Where will you collect your data?
    - How will you collect your data?
    - When will you collect your data?
- Before starting your research fieldwork, assess the underlying risks and plan for mitigating them.
    - Step 1: your risk identification should explore the nature of the risk comprehensively.
    - Step 2: Assess each risk in terms of the probability of its occurrence.
    - Step 3: Prioritise risks and rank them according to the two criteria: impact and probability.
    - Step 4: Do something about the risks so that they can be prevented or their impact reduced.
    - Step 5: Designate the responsible person in your research team to take the appropriate action in response to the identified risks.
- Create a work plan for your research activities by adding requirements, responsible individuals, sub-activities, and a timeline.
- When recruiting your research team, consider the following:
    - When possible, recruit locally and screen for the researcher's background and experience.
    - Consider your research scope.
    - Consider gender – males should interview men, and females interview women.
    - Consider dynamics such as ethnicity, language, and other local attributes.
- To train your team, ensure they fully understand the research scope, goals, questions, and collection methodology.
- Develop a training plan and agenda, and consider practical sessions such as group work and one-on-one mock interviews.
- If possible, as part of the training, take your team to a pilot test and practice conducting research.

Checklist

When preparing for your data collection, you should feel confident about answering 'yes' to the following questions:

1	Do you clearly understand what type of data you will be collecting?	☐
2	Have you identified who will collect your data?	☐
3	Do you have a geographical breakdown of where you will collect your data from?	☐
4	Do you have a clear understanding of how long your data collection will take?	☐
5	Have you assessed the underlying risks of your data collection?	☐
6	Have you developed mitigating measures for the identified risks?	☐
7	Do you have a priority plan for the identified risks?	☐
8	Have you prepared a work plan/timeline of activities for your research?	☐
9	Have you recruited your research team?	☐
10	Have you developed criteria for recruiting your research team?	☐
11	Have you developed a plan for training your research team?	☐
12	Do you have all the required resources (logistics) for your research team to embark on the fieldwork?	☐
13	Do they all have their field plan ready and know what to do on the field?	☐

Further Readings

- "Research in Conflict Settings: Ethical Considerations and Guidelines": https://globalhealthtrials.tghn.org/articles/research-conflict-settings-ethical-considerations-and-guidelines/
- "Field Research in Developing Countries: https://www.worldbank.org/en/programs/sief-trust-fund/brief/field-research-in-developing-countries-ethical-considerations-and-practical-tips
- "Sampling and Sample Size Determination": https://www.cdc.gov/nchs/data/series/sr_02/sr02_148.pdf
- "Using Mobile Phones for Survey Research: https://www.pewresearch.org/methods/wp-content/uploads/sites/10/2015/07/2015-07-16_mobile-phones-survey-research-methodological-overview.pdf
- "The Role of Local Researchers in Fieldwork: Practical Tips for Data Collection in Developing Countries": https://www.mcgill.ca/isid/files/isid/the_role_of_local_researchers_in_fieldwork.pdf

CHAPTER 12: MANAGING RESEARCH DATA COLLECTION

Contents

This chapter provides practical insights into managing a research team during data collection in challenging environments. Topics covered include:

- Managing research team during fieldwork in challenging environments.
- Ensuring the right team composition for the research project.
- Guidelines for sensitivity to local culture and norms.
- Guidelines for research team safety and Security.
- Establishing effective communication protocols during fieldwork.
- Managing team during remote research data collection.

After going through this chapter, researchers will be able to effectively manage their teams during data collection in challenging environments, ensuring team safety, respecting local culture and norms, and maintaining efficient communication for successful research outcomes.

Managing Your Research Data Collection

After training your data collectors, the next step is to manage and monitor their work to ensure that they are conducting the fieldwork in line with the research methodology. This involves asking yourself the following simple questions when implementing your research:

- Are you interviewing the right people?
- Are you interviewing people at the right time?
- Are you interviewing enough people?
- Are the interviews of acceptable quality?

Although these questions will be answered in different phases of the research, including sampling, tool design, training, and field planning, always cross-check them when entering the fieldwork phase. This will help to ensure that your team is implementing the research design correctly and collecting data that is accurate and reliable. By staying vigilant throughout the data collection process, you can help to prevent errors and inconsistencies that could compromise the validity of your research findings.

1. Managing the data collection process

To effectively manage the data collection process, establish clear procedures that are tailored to the specific scope, size, and location of your research project. Some key considerations may include:

- How will researchers communicate in the field?
- What transportation methods will be used to reach research locations?
- What is the daily research target, and how will progress be tracked?
- How will you handle delays or other issues that may impact the timeline?

Answering these critical questions will help you effectively manage your research project. In this section, we'll discuss key points related to managing data collection, including logistics and team management. By implementing clear procedures and staying on top of team progress, you can help ensure that your data collection efforts are accurate and effective.

2. Managing your researchers

Effective management of your research team requires clear roles, responsibilities, targets, and reporting structures to be established from the outset. This is especially important when your team is operating across multiple provinces simultaneously. Along with reporting structures, you should establish the frequency of communication between and within teams.

Before sending your research team to the field, you must communicate your expectations clearly, including their work schedule, daily interview targets, the expected quality of interviews, and the length of interviews. Also, clarify what field data collectors will receive in salary and allowances (such as accommodation, per diem, transportation, etc.).

Even for small research units consisting of a researcher and a few support members, it is essential to establish roles, responsibilities, targets, and an effective reporting structure. For instance, if team members are being sent to provinces, they should check in with the lead researcher.

It is advisable to divide your research teams into smaller units of 4-6 members and select a research team leader from among them. The team leader would then communicate and report to the research coordinator, ideally at the provincial or district level. If you need to interview or survey females, it is critical to have female researchers on your team and budget for their legal companions or Mahrams. Please refer to the chart below for a sample staffing structure at the field level. Note that your staffing structure may vary based on factors such as research type, scope, timeline, etc.

In summary, managing your research team involves:

- Setting up clear roles, responsibilities, targets, and reporting structures within the team.
- Clarifying the frequency of communication between teams and within the reporting hierarchy.
- Communicating expectations to the team, including work schedule, daily interview targets, expected quality of interviews, and length of interviews.
- Clarifying what team members will receive, such as salaries and allowances.
- Establishing an effective reporting structure, even for small research units consisting of a researcher and a few support members.
- Dividing research teams into smaller units of 4-6 members and selecting a research team leader from among them.
- Having female researchers on the team and budgeting for their legal companions or Mahrams if required.

3. Ensuring the right team composition

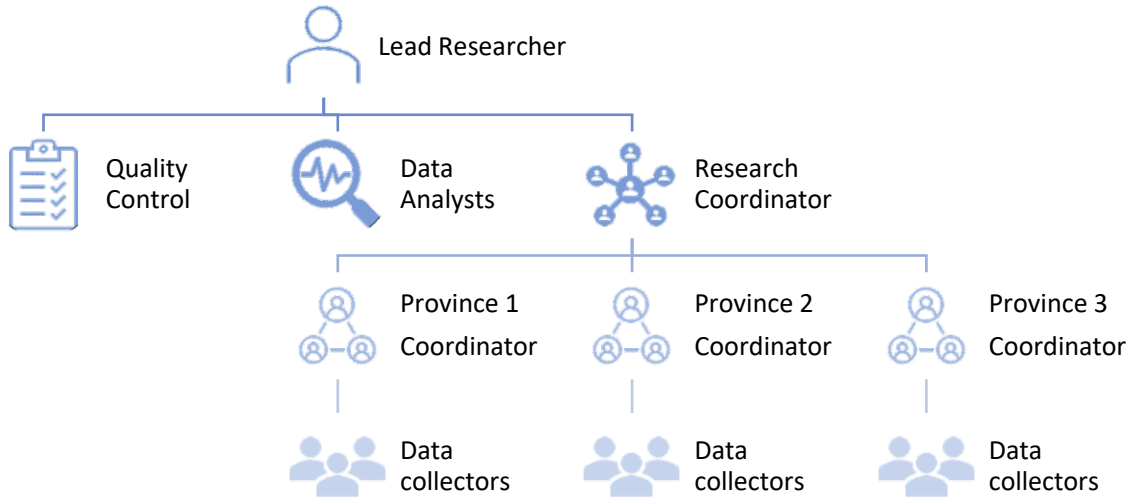
You need to carefully consider the type, scope, funding, and timeline of your research before putting your research team together. For a medium-sized research project, it is recommended to have a core team consisting of a team leader (lead researcher), coordinator, quality control, and data analyst. Depending on your specific requirements and available resources, you may also need to add officers and assistants to each role.

For smaller projects, you can consolidate these roles to achieve maximum efficiency with fewer team members. For instance, in smaller research projects, one team member may take on multiple roles, such as the team leader also serving as the coordinator or the data analyst also performing quality control duties. This consolidation can streamline the research process and reduce the need for additional personnel, allowing for a more cost-effective approach. However, you will need to carefully assess the workload and responsibilities of each role to ensure that team members can effectively manage their tasks and maintain the quality of the research outcomes.

Once you have established your core team, the next step is to recruit data collectors. Depending on your research scope and budget, you may either hire additional staff or allocate roles and responsibilities among your existing team members. If you have sufficient funding, it is recommended to hire data collectors based on your geographical coverage and needs in each area. For example, you could assign a team of two male and two female researchers to each province, district, or village.

To support your field researchers, you may need to hire additional coordinators or assign roving field monitors to conduct spot checks. Depending on your research requirements, you may also need to hire quantitative and qualitative analysts, subject matter experts, and statisticians. These additional resources can help collect and analyze your data accurately and reliably.

Building a solid and effective research team requires careful planning and consideration of your research objectives and constraints. You can ensure that your research project succeeds by selecting the right team members and providing them with the resources they need to succeed. Additionally, establish clear communication channels among team members and hold regular debriefing sessions to address challenges and improve the research process.



To ensure the success of a research project, create a well-structured team with clear roles and responsibilities. The following list outlines the primary roles of each team member and their anticipated participation in the various steps toward delivering the project's goals:

i. Lead Researcher/Team Lead

- Design research questions, including data collection tools/questionnaires.
- Lead the sampling, geographical coverage, and scope definition of the research exercise.
- Recruit/assign/supervise core team members such as quality assurance, coordinator, data analyst, etc.
- Ensure that team members actively contribute to data collection, analysis, and conclusion development.
- Represent the research team with internal and external stakeholders.
- Develop a research design and planning document (i.e., research inception report/proposal, etc.).

ii. Research Coordinator

- Lead research coordination activities with all team members.
- Support the research lead in organizing the team, training, etc.
- Support the research lead in methodology design and tool development.

- Lead/coordinate meetings with internal and external stakeholders and contribute to drafting/revision of research products: reports, feedback presentation, etc.
- Coordinate recruitment and assignment of the data collectors to provinces.
- Supervise provincial coordinators, ensuring that activities and resources are provided on time and effectively.
- Coordinate activities and resource allocation during data processing, data management, and analysis.
- Keep track of security and provide guidance on security for data collectors.

iii. Quality Control

- Develop a quality control plan by setting up quality assurance indicators and standards.
- Supervise research quality, including data collection, processing, and reporting.
- Train data collectors in collecting data as per the research quality standards.
- Set up a feedback mechanism to promptly communicate with field researchers on the data quality (i.e., if an interview/survey is low in quality, QC should provide prompt feedback to improve in the future).
- Support the lead researcher in data cleaning and processing.
- Develop guidelines for the phone setup, recorder specifications, GPS specifications, etc.

iv. Qualitative/quantitative analysts

- Support the lead researcher in the development, review, and finalization of the data collection tools.
- Test qualitative and quantitative tools, and ensure coherency, logical structures, and coding.
- Follow the analysis process, and advise the lead researcher on possible improvements to the analysis.
- Identify ways to improve tools based on findings during analysis (if necessary).
- Develop an analysis framework/matrix.

v. Provincial coordinators

- Train data collectors on best practices to employ when collecting data from the field.
- Negotiate access to hard-to-reach areas and conduct monitoring visits.
- Guide and monitor the work of field researchers.
- Support recruitment of field researchers when needed by identifying potential researchers through existing networks in the field.
- Support the research team with logistics, finances, and transportation (i.e., arranging vehicles).
- Support the research team in developing plans, including field plans for individual researchers.
- Follow up and track on a routine basis the work of field researchers against the set targets.

To ensure effective management of your research project, hold frequent debriefing sessions with your entire team, especially in the initial days and weeks. These sessions should happen daily if

possible and provide an opportunity for team members to flag challenges and concerns as they arise. A possible structure for your debriefing sessions includes the following:

- Discuss strategies and approaches to manage timelines and adhere to the research work plan.
- Jointly review and discuss conducted interviews and surveys, identifying areas where researchers performed well and areas that need improvement.
- Encourage your team to raise any challenges they're facing, especially those in the field, and provide time for discussion and resolution. This approach enables cross-learning from the field and vice versa.

By following this structure, you can ensure that your research project stays on track and that your team is empowered to work together to achieve your research goals.

4. Establish effective communication protocols

Here are some guidelines to follow to ensure effective communication within your research team:

- Establish a clear communication protocol among the research team, field team leaders, coordinators, and lead researchers (or assistant staff members).
- Budget for mobile phones, sim cards, top-up cards, and mobile data to facilitate effective communication among the research team.
- Choose the appropriate phone network company that provides optimal coverage in the area of operation.
- Use WhatsApp or Signal for secure communication and information sharing among the research team.
- Create smaller WhatsApp groups instead of larger ones to manage communication effectively.
- Ensure that the research team follows the confidentiality guidelines of the research data shared via WhatsApp groups.
- Communicate clearly to the research team that all communication should be work-related, respectful, and cordial.
- Set preferred time slots for communication in the group, i.e., 8 am to 4 pm, and communicate urgent and emergency matters only during off-hours.

It would help if you also clarified how your field researchers would receive feedback and from whom. A clear timeline becomes essential for effective research time management if the field researcher works in a hard-to-reach or low-phone coverage area.

Finally, emphasize the importance of research quality and integrity to the research team by answering the following questions:

1. How will the research team react if minor errors are observed in the data?
2. How will the research team react if major research-altering mistakes are observed?
3. How will the research team respond if fraudulent or manipulated data is submitted?

Maintaining a 'zero tolerance' policy towards fraudulent data collection and data manipulation is crucial to ensure the integrity and credibility of the research. More important than setting this standard is communicating it clearly to your field researchers. In case of fraud or manipulation, you should thoroughly clarify to the field researchers that you will investigate the issues, and as a result, they may need to re-collect the data.

5. Having safety and security protocols

Prioritizing the safety and security of your research team should always be a top priority when planning any research project, especially if it will be taking place in an unsafe or insecure area such as conflict-prone regions like Afghanistan or areas with mines and unexploded ordinance. Additionally, consider the safety and security of your team when researching sensitive topics such as ethnicity, warfare, narcotics, religion, or women's rights.

Before starting any fieldwork, it is essential to communicate all safety and security risks clearly to your team. If the researchers decide to participate, ensure they understand and follow the safety and security rules and regulations and provide training on handling situations where they feel unsafe.

Listed below are common safety concerns and protocols that can be implemented to address them:

- Always budget for female data collectors to be accompanied by their *Mahrams*.
- In case of bad weather conditions or natural disasters, avoid traveling to research areas or consider closing the day early. Advise data collectors to inform their supervisor and discuss alternative options, such as extending the research timeline or dividing the target of interviewers/surveys for the day to other working days.
- Avoid traveling to research areas with poor security conditions or active conflict, advise data collectors to inform their supervisor and discuss alternative safe routes, and if travel is not possible, extend the timeline or divide the target to other working days.
- To avoid harassment or discrimination in the fieldwork, avoid sending female surveyors alone, always send them in pairs or groups, advise researchers to wear culturally appropriate attire, and if necessary, stop the interview/survey altogether and plan an alternative course action.
- Take necessary precautions to protect researchers and participants in case of health hazards and risks such as COVID-19. Budget for face masks, gloves, hand sanitizers, etc., and advise researchers to maintain the required distance while interviewing. Take extra precautions when working in places with poor access to medical facilities.
- If possible, allocate funds for health insurance coverage of your research team in case of physical risks or injuries. This includes sending enumerators to the doctor, providing information for medical assistance, or providing medical leave of absence if necessary.
- If possible, consider budgeting for counseling services if your research team members require emotional support or psychological advice in case of psychological risks.

By implementing safety and security protocols, communicating clearly with the research team, and providing the necessary resources and training, you can help ensure a safe and successful research project.

Managing Remote Research

Remote research refers to conducting research activities, such as interviews or surveys, remotely through phone or online survey forms due to restrictions like those imposed by the COVID-19 pandemic. It has become more prevalent in recent times due to limitations on in-person research activities.

The importance of remote research lies in its ability to continue research activities despite physical constraints, allowing researchers to collect data and generate insights. It also provides opportunities for reaching wider and more diverse populations and reduces the need for travel, thereby saving time and resources.

The benefits of remote research include increased accessibility, cost-effectiveness, and the potential for faster data collection. It also allows for flexibility in conducting research, which can be adjusted to fit various situations and contexts.

However, remote research also poses challenges, such as maintaining the quality and accuracy of data, supervising researchers, and dealing with limitations of technology and connectivity. It may also require careful consideration of team composition, cultural context, and communication challenges.

In the passages below, we discuss some details and examples of how to effectively manage your remote research team:

1. Define roles and responsibilities

Clearly define the roles and responsibilities of each team member involved in the remote research project. This includes team leaders, data collectors, and other relevant stakeholders. Ensure that everyone understands their responsibilities and expectations, and establish channels for communication and reporting. Assign a team leader who understands the local context, culture, and language when conducting research. This person can serve as a liaison between the remote researchers and the local community, helping to ensure that the research is conducted in a culturally appropriate and respectful manner.

2. Provide training and support

Provide comprehensive training to your remote team members on research protocols, data collection techniques, and the use of research tools or technology. Offer ongoing support and guidance to address any questions, concerns, or challenges that may arise during the research process. Conduct regular training sessions, webinars, or workshops to ensure that remote team members are well-equipped with the necessary skills and knowledge to conduct the research

effectively. Provide additional support through email, phone, or virtual meetings to address any issues or challenges faced by the team.

3. Establish communication channels

Set up effective communication channels to ensure smooth communication and coordination among team members. Utilize technology tools such as email, messaging apps, audio/video conferencing, and project management platforms (as simple as google forms tracking sheet) to facilitate communication and collaboration. For example, use messaging apps like WhatsApp or other similar tools to maintain regular communication with remote team members. Schedule regular check-ins, progress updates, and virtual meetings to discuss research progress, address any issues, and provide feedback.

4. Monitor progress and quality

Regularly monitor the progress and quality of the research activities conducted by the remote team. Establish data collection, entry, and validation mechanisms to ensure the accuracy and reliability of the research findings. For example, use online platforms or tools to monitor and track the progress of data collection activities, completion rates of interviews or surveys, and data entry. Provide timely feedback to remote team members on their performance and areas for improvement.

In summary, effective management of a remote research team requires clear roles and responsibilities, comprehensive training and support, established communication channels, and monitoring of progress and quality. Remote research has become more prevalent due to pandemic-related restrictions. While it has its benefits, it also presents challenges, as discussed.

Here are some links to guidelines and resources about CATI systems:

1. "How to Conduct CATI Surveys" by Voxco: https://www.voxco.com/blog/how-to-conduct-cati-surveys/
2. "CATI Survey Best Practices: Tips and Tricks for Conducting Telephone Surveys" by SurveySensum: https://www.surveysensum.com/blog/cati-survey/
3. "Computer-Assisted Telephone Interviewing (CATI) System" by The University of Auckland: https://www.auckland.ac.nz/en/about-us/about-the-university/our-story/history-of-the-university/our-innovations/computer-assisted-telephone-interviewing-cati-system.html
4. "CATI Software Guide: Computer-Assisted Telephone Interviewing Software" by SurveyAnyplace: https://surveyanyplace.com/cati-software/

Key Points

In summary, the main takeaways from this chapter are:

- As a researcher, you should make sure that your research is being implemented as per the pre-determined methodology and design. To make sure, ask these general questions.
    - Are you interviewing the right people?
    - Are you interviewing people at the right time?
    - Are you interviewing enough people?
    - Are the interviews of acceptable quality?
- Set up clear research monitoring indicators to follow while conducting your study to measure research progress.
- Always consider recruiting female researchers (and budget for their legal companions) if your research includes interviewing/surveying women.
- When starting your research, hold frequent sessions to guide the team on proper Implementation and help them learn.
- Clearly outline and communicate with relevant teams' communication and reporting protocols, including:
    - Communication rules and regulations such as being respectful, cordial, and sticking to work-related issues.
    - Communication mediums such as WhatsApp, Signal, etc.
    - Clarify team members' roles and responsibilities, including daily targets, quality expectations, etc.
    - Ensure that all team members understand the confidentiality clauses in your research.
    - Clearly outline financial and logistic details, i.e., salary, accommodation, top-up credits, etc.
    - Make sure your team understands the penalties if data is manipulated or collected fraudulently.
- Communicate safety and security rules, regulations, and risks to the researchers and ensure that they are deciding to participate in the research informed and voluntarily.
- Allocate ample budget for incidents and emergencies and, if possible secure insurance (health, accident, etc.) for your research team.
- While conducting CATI, or remote research, pay extra attention to tracking researchers' work, timelines, and quality of data.

Checklist

When managing your research, you should feel confident about answering 'yes' to the following questions:

1	Have you identified key monitoring indicators to measure your research progress and accuracy?	☐
2	Have you considered hiring female researchers for possible female research participants?	☐
3	Have you clearly communicated your research goals, objectives, and quality expectations?	☐
4	Have you clarified research team structures – at the provincial, district, and village levels?	☐
5	Have you decided on a communication medium?	☐
6	Have you communicated the rules and regulations of communication to your team?	☐
7	Have you communicated safety rules and regulations to your team?	☐
8	Have you communicated data confidentiality expectations to your team?	☐
9	Have you clarified daily targets and quality expectations?	☐
10	Have you budgeted for emergencies, incidents, etc.?	☐

Further Readings

- "Guide to Data Collection for Research in Fragile and Conflict-Affected Environments" by USAID. Available at: https://www.usaid.gov/sites/default/files/documents/1865/Guide%20to%20Data%20Collection%20for%20Research%20in%20Fragile%20and%20Conflict-Affected%20Environments.pdf
- "Guidelines for Conducting Research in Conflict and Post-Conflict Settings" by the International Rescue Committee. Available at: https://www.rescue.org/sites/default/files/migrated/irc-guidelines-research-conflict-postconflict.pdf
- "Guidance for Research in Complex Emergencies" by the World Health Organization. Available at: https://www.who.int/hac/techguidance/tools/guidance_for_research_in_complex_emergencies.pdf
- "Data Collection in Challenging Environments: Innovative Approaches and Lessons Learned from the Field" by the International Foundation for Electoral Systems. Available at: https://www.ifes.org/publications/data-collection-challenging-environments-innovative-approaches-and-lessons-learned
- "Data Collection in Humanitarian Settings" by the Humanitarian Data Center. Available at: https://centre.humdata.org/data-collection-in-humanitarian-settings/

CHAPTER 13: ASSURING QUALITY IN RESEARCH PROJECT

Contents

This chapter covers the basics of research project quality assurance and provides step-by-step guidance on key procedures and elements. The chapter includes the following:

- Overview of quality standards from beginning to end of the research project.
- Guidelines on assuring quality in all three phases of research:
  - design (prior to data collection)
  - implementation (during data collection)
  - analysis (post-data collection)
- Guidance on managing your quality assurance team in each step.
- Key quality considerations during translation and transmission of your data.

Overall, after going through this chapter, readers will gain the ability to set and apply quality assurance measures and indicators throughout their research project, ensuring the credibility and validity of their study.

Quality Assurance in Research

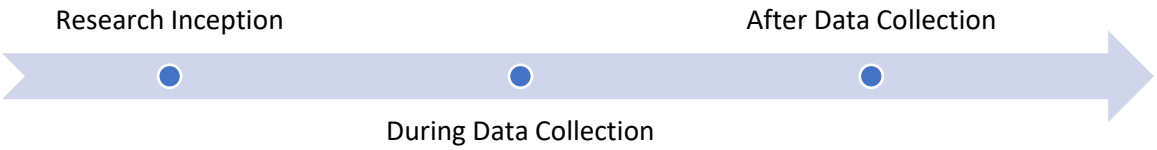
Ensuring the quality of research is essential regardless of the type of study. Quality assurance systems are vital for maintaining data reliability, consistency, and accuracy in all phases of research management. Quality assurance procedures are cross-cutting and multi-layered, and they should be embedded into every aspect of your research.

Generally, for high-quality outputs, follow these principles:

- Allocate personnel and assign specific roles for monitoring and checking the quality of your research.
- Outline research quality standards from the outset and communicate them clearly with all team members, including data collectors.
- Train and coach field researchers on key considerations, methods, and protocols for ensuring quality in research.
- Identify and incorporate technology to increase data collection efficiency and improve result reliability while keeping enough flexibility with data collection methods due to security constraints.
- Incorporate quality assurance measures in the data collection tool during design, coding, and application.
- Monitor quality standards during the piloting of the data collection tools.
- Systematically review translations of qualitative data for accuracy and quality.
- Cross-check all outputs and analysis of quantitative data to ensure statistical validity and analytical rigor.

Pay close attention to three phases when ensuring research quality:

1. **Pre-data collection:** Allocate sufficient resources to train and prepare field researchers and make sure research quality standards are communicated effectively.
2. **Data collection:** Use appropriate quality assurance measures to monitor data collection, ensure translation accuracy, and guarantee data security.
3. **Data analysis and reporting:** Use rigorous methods to analyze data, cross-check the validity of findings, and use trusted third-party sources to triangulate results.



1. Prior to data collection

i. Identify quality assurance requirements

To ensure quality assurance prior to starting data collection, it is crucial to thoroughly discuss and **decide on specific quality assurance requirements** during the initial planning meeting or research kick-off. This should involve careful consideration of research goals, objectives, deliverables, data collection methodologies, sampling, and data collection approaches to inform decision-making. Relevant research documents, such as the research protocol, data collection instruments (e.g., questionnaires, interview guides), and standard operating procedures (SOPs)

for data collection and quality assurance, should be shared with the research team to ensure their comprehensive understanding of the research components and requirements.

Quality assurance requirements could include measures such as:

- Double data entry to ensure data accuracy
- Data validation checks to ensure data completeness
- Data cleaning procedures to ensure data consistency

ii. Train and coach the quality assurance team

Provide proper training and coaching to your quality assurance team on key considerations, methods, and protocols for ensuring quality in your research. This can include training them on research ethics, data collection techniques (e.g., interview and survey techniques), and data quality standards. For example, training the quality assurance team on research ethics can ensure that they understand the importance of protecting participant confidentiality and privacy during data collection, and training them on data quality standards can help them identify and address potential data quality issues.

In addition, providing training and coaching to your quality assurance team on specific data collection platforms, such as KoBo or ODK, can greatly improve efficiency and reliability. These platforms offer features such as built-in data validation checks, real-time data validation, and automated data entry, which can help minimize data entry errors and ensure data quality.

By training and coaching your quality assurance team on how to effectively use these data collection platforms, you can equip them with the necessary skills to implement quality assurance measures during the data collection process, such as:

- Setting up and configuring data collection forms with appropriate data validation rules.
- Using built-in data validation checks and error alerts.
- Troubleshooting common issues.

iii. Test and pilot quality assurance measures

This can involve conducting pilot tests to identify and address any potential issues or challenges with the data collection process. For example, piloting the data collection instruments with a small sample of participants can help identify any problems with the instruments and allow for necessary adjustments before full-scale data collection. Regular monitoring and supervision of the data collection process by the quality assurance team can also help ensure that data is being collected accurately and consistently according to established protocols.

2. During the data collection

During data collection, actively implement quality assurance measures to ensure the validity and accuracy of the collected data. The following measures can be used depending on your budget, team availability, and donor requirements:

- Assign quality assurance staff to conduct surprise physical visits and spot checks to verify surveys and interviews in the research areas.

- Assign quality assurance staff members to call random survey/interview participants to verify the authenticity of the interviews/surveys and ensure they were conducted with the right population groups.
- Assign team members to call researchers/surveyors at different points during the day to verify their location and work schedule and talk to the interviewees for further verification. It is recommended to record the results of the quality assurance activities in an online tracker.
- Assign your quality assurance team to routinely provide feedback to the field researchers and surveyors and inform the lead researcher about the quality of data after checking the interviews/survey data as they are received.
- Conduct call-backs with the interviewees to triangulate the authenticity of interviews and clarify any vague or unanswered questions.

Your quality assurance functions will depend on your research type, funding, and donor requirements. In general, the following tasks can be done to ensure the quality of your research:

- Call surveyors and researchers at different points during the day, record their location, talk to the respondents who are being interviewed, and call-back respondents. Record this information in daily records and collate it weekly into audit reports delivered to the client upon request.
- Deploy roving quality assurance staff to conduct site visits and spot-check ongoing field activities, talk to community members/respondents to verify the information provided by field monitors, and check the accuracy of reporting.
- Check GPS coordinates/photos recorded at each sampling location to make sure data collectors are visiting the right locations.
- Require researchers to report daily to their supervisor through phone and/or short WhatsApp texts summarizing activities, observations, remarks, and difficulties encountered.

By implementing these quality assurance measures, you can ensure the accuracy and validity of the data collected and provide high-quality research results to your client or donor.

3. After data collection

After data collection, there are several activities that you and your team should take to ensure the quality of your data. These activities include:

- Review and cross-check qualitative interview transcripts and ensure they are consistent with the audio files.
- Review and cross-check recorded audio files of interviews/surveys against the questionnaire to ensure that questions have been accurately asked.
- Randomly check different timestamps in the audio files to ensure the sound quality is good and that interviews recorded for the entire duration.
- If the quality of the audio files is not up to the required standards, assign researchers to re-conduct the interviews.
- Randomly verify data by calling back the respondent to make sure that interviews/surveys were conducted.

- Rename and tag interviews/surveys using a filing system (i.e., name, date, location, stage).

For some research, especially quantitative research, researchers assign a team to randomly select a percentage of survey records for verification, usually 20% of the responses received. The team logs the quality assurance activities' results against each randomly selected survey record, including activity type (calls or spot checks), outcome (survey accepted or rejected), time and date, and comments. This process ensures that the data collected is high quality and reliable for analysis.

Quality Assurance in Data Transmission and Translation

Data transmission and translation are critical steps in social research that involve transferring research findings from one stage to another or from one language to another. Ensuring data transmission and translation quality will help you maintain the integrity, validity, and reliability of research findings. Poor data transmission or translation can result in inaccurate or misleading research outcomes, leading to flawed conclusions or misinterpretations. (Refer to Chapter 14 for a detailed discussion on data transformation – from raw to clean data – in your research study.)

Listed below are best practices to consider when transmitting and translating your research data:

Standardization: Standardization is a key aspect of data transmission and translation. It involves using standardized formats, protocols, and procedures to ensure consistency and uniformity in data transmission and translation. Make sure your team adheres to the established standards, guidelines, and protocols so that data is transmitted/translated accurately and consistently.

Data Accuracy: Data accuracy is critical in data transmission and translation. Ensure that your data is transmitted/translated without any loss or alteration of information. Data accuracy can be guaranteed by using reliable and secure data transmission/translation methods and tools, such as encryption, checksums, or data validation techniques.

Qualified Translators: Qualified translators are essential for ensuring high-quality translation of social research data. Translators should be proficient in both the source and target languages, as well as have a good understanding of the social research context. They should also be aware of cultural nuances and the meaning of specialized terminologies used in social research to ensure accurate translation.

Back-Translation: Back-translation is a common technique used to ensure the accuracy of translated data. It involves translating the data back into the original language by a different translator to verify the accuracy and consistency of the translation. Any discrepancies identified during back-translation can be resolved to ensure the quality of the translated data.

Review and Editing: Review and editing are essential steps in data transmission and translation to ensure accuracy and clarity. Researchers should review and edit the transmitted or translated data carefully to identify and correct any errors, inconsistencies, or ambiguities. This can involve proofreading, fact-checking, and cross-checking with the original data to ensure accuracy and quality.

Communication with Translators: Effective communication with translators is crucial to ensure quality in data transmission and translation. Researchers should maintain clear and open

communication with translators, providing them with detailed instructions, clarifications, and feedback throughout the data transmission or translation process. This can help resolve any issues or misunderstandings and ensure accurate and high-quality data transmission or translation.

Pilot Testing: Pilot testing is a useful technique to ensure quality in data transmission and translation. You can conduct a small-scale pilot test of the data transmission/translation process to identify and address any issues, errors, or inconsistencies before implementing the full-scale data transmission or translation. This can help refine the process and ensure quality in the final data transmission or translation.

Documentation: Proper documentation is essential in data transmission and translation to ensure quality and transparency. You should maintain detailed records of the data transmission or translation process, including the methods, tools, and procedures used, as well as any issues, errors, or corrections made. This documentation can serve as a reference for quality assurance and can be used for audit purposes.

Let us go through the example below and see how a CSO can ensure quality in translation and data transmission during a research project:

The topic of the research in this example is not specified, as it could be any social research topic relevant to Afghanistan. However, let's assume that the CSO is conducting a research study on the impact of education programs on gender equality in rural communities in Afghanistan. The CSO aims to collect data from local communities in Dari and Pashto and translate it into English for analysis and reporting purposes. Ensuring the quality of translation and data transmission is crucial to obtain accurate and reliable research findings. Here is how they do it:

First, the CSO hires bilingual translators who are proficient in both English and Dari or Pashto. In the hiring process, the CSO ensures that translators have a deep understanding of the local culture and context, as well as familiarity with social research terminology.

Second, the CSO develops a standardized translation protocol that outlines the translation process, including guidelines for accuracy, cultural nuances, and confidentiality. The CSO shares this protocol with the translators and holds a question-and-answer session to respond to any questions to avoid possible misinterpretations.

Following this, the CSO sets up a back-translation process to ensure the accuracy of the translated data. Back translation is the re-translation of the data after the initial translation by a different translator back into English. This back-translation can then be compared with the original data to identify any discrepancies or errors that may have occurred during translation.

The CSO also provides training to translators on the specific research topic, research design, and data collection instruments to ensure that they have a clear understanding of the research objectives and context. This training will be helpful for the translators to accurately translate the data and minimize potential misinterpretations.

Moreover, the CSO ensures that the data is transmitted securely to protect the confidentiality and integrity of the research findings. The CSO uses encrypted communication channels, password protection, and secure storage methods for data transmission and storage to prevent unauthorized access or data breaches.

As the last step, the CSO establishes detailed documentation of the translation process,

including the translation protocol used, information about the translators, and back-translation results. This documentation can serve as a reference for quality assurance and can be used for verification and audit purposes.

In summary, by implementing these measures, the CSO has ensured the quality of translation and data transmission in their research conducted in Afghanistan, resulting in accurate and reliable research findings that can be used for evidence-based decision-making and policy advocacy.

Key Points

In summary, the main takeaways from this chapter are:

- Outlining your research quality standards from the start and communicating them clearly with your team members, including field researchers.
- Allocating personnel and assigning roles specifically for monitoring and checking the quality of your research.
- Training and coaching field researchers on key considerations, methods, and protocols for ensuring quality in research.
- Identifying and incorporating technology to increase the efficiency of data collection and improve the reliability of results while, at the same time, keeping enough flexibility with methods of data collection and accounting limitations due to the security context.
- Incorporating quality assurance measures in the data collection tool during design, coding, and application.
- Monitoring quality standards of the research during the piloting of the data collection tools.
- Systematically reviewing translations of qualitative data for accuracy and quality.

Checklist

When checking the quality of your research data, you should feel confident about answering 'yes' to the following questions:

1	Have you created a specific team for checking the quality of your research data and process?	☐
2	Have you clarified quality assurance standards, procedures, and requirements to your team?	☐
3	Have you trained your field researchers on key quality considerations and protocols?	☐
4	Have you incorporated technology into your data collection quality assurance measures?	☐
5	Have you checked the quality assurance measures while piloting your research questions?	☐
6	Have you dedicated a team to monitor real-time data collection progress against your sample?	☐
7	Have you considered a percentage of your research to be randomly checked for quality?	☐
8	Do you have a dedicated team to conduct callbacks and cross-check received data with the respondents, locations of research, timing, and manner of interviews?	☐
9	Have you transmitted your data to a secure server for further processing?	☐
10	Have you reviewed the translation of qualitative data for accuracy and authenticity?	☐
11	Do you have all your data sorted and named according to their unique tags and IDs?	☐

Further Readings

- Improving Data Quality in Developing Countries by António Vaz Carneiro and Paulo Nicola Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3740166/
- Quality assurance and quality control in research" by the World Health Organization Link: https://www.who.int/tdr/publications/documents/quality-assurance.pdf
- Ensuring Quality in Qualitative Research by Uwe Flick Link: https://www.researchgate.net/publication/324444291_Ensuring_Quality_in_Qualitative_Research
- How to ensure data quality in qualitative research? by Laura Perez-Belmonte Link: https://www.researchgate.net/blog/post/how-to-ensure-data-quality-in-qualitative-research
- Quality Control in Qualitative Research by Sarah M. Corse and James A. Trostle Link: https://www.researchgate.net/publication/283474674_Quality_Control_in_Qualitative_Research

CHAPTER 14: CLEANING RESEARCH DATA

Contents

This chapter provides a detailed guideline for managing and cleaning raw quantitative and qualitative data for analysis. It includes:

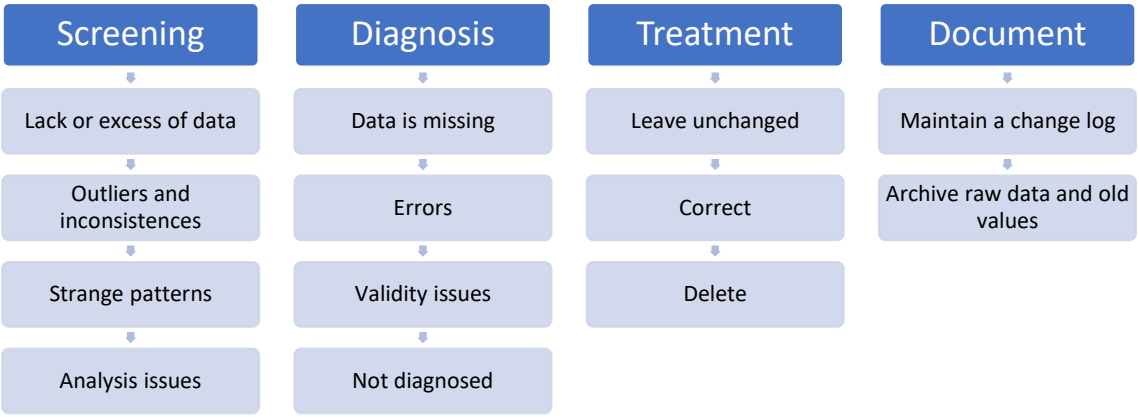
- Overview of fundamental concepts and approaches to data cleaning.
- Step-by-step guide and examples for processing and cleaning quantitative data.
- Detailed guidelines on diagnosing missing data in quantitative research.
- Step-by-step guide for processing and preparing qualitative data.

After going through this chapter, readers can effectively sort, explore, and prepare their raw research data for analysis, ensuring accurate and reliable results in their research endeavors.

Data Cleaning

Data cleaning is a necessary process that transforms raw and unorganized data into a valuable and informative format ready for analysis. It is an erroneous process. Thus, error-prevention strategies should be implemented in the database design and quality assurance sections to minimize mistakes. However, despite these efforts, common errors may still occur and will need to be addressed during the data collection, entry, transfer, and analysis phases.

Data cleaning involves a cycle of repeated screening, diagnosing, treatment, and documentation.



During the screening phase, researchers systematically look for suspect features in questionnaires, databases, or analysis datasets. In the diagnosis and treatment phases, researchers identify the nature of the defective data and determine the best course of action, which may include deleting, editing, or leaving the data.

Let us begin by briefly reviewing some key concepts, such as raw data, variables, etc., to establish definitions and set the foundation for our upcoming data cleaning and management discussions. Once we have a clear understanding of these concepts, we can then discuss the data-cleaning stages in more detail.

Critical Concepts in Data Cleaning

1. What is Raw Data?

The data obtained about individuals, groups, households, or organizations is usually called raw data. The table below shows an example of raw data for ten households as an illustration. Each row represents the data from a single respondent, and no rows are left blank. In this case, each respondent was a household, and each column represents a variable that measures some characteristics of the respondents, such as age, education, employment, and income. The data is coded to represent specific values.

Survey ID	Age	Education	Employment	Income
1	1	3	1	1
2	N/A	5	2	000
3	5	2	999	3
4	000	1	2	999

It is necessary to understand the meaning of the code in each row and column. During the questionnaire design process, researchers usually create a **codebook**, also known as metadata or a data dictionary. The codebook explains the variable types, indicators, and associated meanings for codes such as 000 or 999.

In the above table, the codebook would explain what the number '1' represents under the 'age' category. For instance, in the table above, the code book would clarify that '1' under the 'age' variable refers to the age group of 18 to 25. At the same time, 'N/A' indicates that the question was not applicable. Similarly, '000' means that the question was skipped or not answered, and '5' represents the age group of 60 and above.

A simple code book could look like the example below:

Variable	Variable label	Value labels
Survey type	A unique identification number is assigned to each survey respondent	1=first survey, 2 = second survey, …
Age	Age of the respondent during the survey	1=18 to 25, 2=26 to 35, 3=36 to 45, 4=46 to 60, and 5=60+ N/A= not applicable 000 = not answered 999 = other option
Education	Level of respondents' education during the survey	1= school graduate 2= university graduate 3= Masters 4= PHD 5=Madrasa …
Employment	Type of employment of the respondent during the survey	1= employed, 2= part-time employment, 3=self-employed, 4=unemployed, …999 = other option
Income	Level of income of the respondent during the survey	1=1 to 5000 AFN 2 = 5001 to 10000 AFN 3 = 10001 to 20000 AFN 000 = not answered 999 = other option …

A typical code book contains variable names, labels, and value labels. For example, the variable 'age' could have the following value labels: 1=18 to 25, 2=26 to 35, 3=36 to 45, 4=46 to 60, and 5=60+. Other codes such as N/A, 000, and 999 may also be used to represent different data.

In a dataset, each column corresponds to a specific variable, and each row represents a respondent. The first row contains column headings that describe each variable, while subsequent rows contain data for each respondent. For example, the table below shows data for seven respondents, including their age, education level, employment status, and income:

Survey ID	Age	Education	Employment	Income (AFN)
1	18-25	High school	Full-time	>10000
2	26-35	Bachelor	Part-time	<20000
3	36-45	Masters	Full-time	>100000
4	60+	Madrasa	Retired	N/A

5	18-25	Bachelor	Jobless	000
6	26-35	Masters	Full-time	999
7	36-45	Madrasa	N/A	>10000

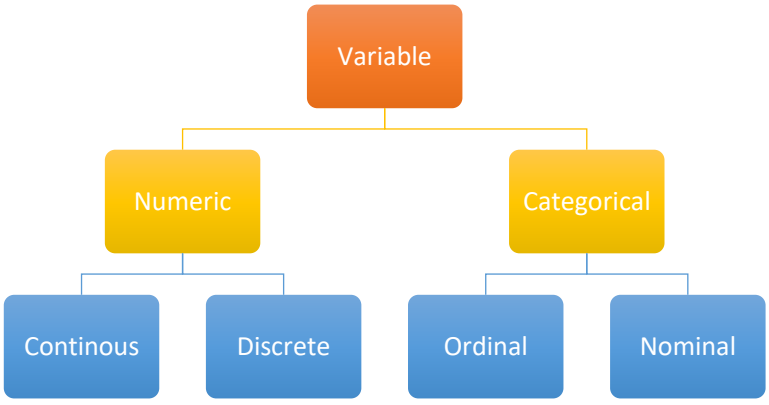
Before cleaning the data, it is vital to understand the concept of variables in research and how they are represented in the data.

2. What is a Variable?

A variable is a characteristic, quantity, or number that can be measured or counted. It is also known as a data item. Examples of variables include age, gender, business income, country of birth, capital expenditure, class grades, eye color, and vehicle type. The term "variable" is used because the value of a variable may vary among data units in a population, and it may also change in value over time.

To give an example, consider the variable "income." Income can vary between data units in a population, meaning that the people or businesses being studied may not have the same incomes. Additionally, income can change over time for each data unit, as it may increase or decrease. There are different ways variables can be described based on how they are studied, measured, and presented.

Variables can be categorized as either numeric or categorical. **Numeric variables** are quantitative variables that describe a measurable quantity as a number. These variables can be further described as either continuous or discrete.



Continuous variables are values that can vary within a range of real numbers, and they can be as precise as the measurement instrument allows. Examples of continuous variables include height, time, age, and temperature, where the values can be decimals or fractions.

On the other hand, **discrete variables** are based on counting whole values from a set of distinct values. They cannot take fractional values or values in between the distinct values. For example, counting the number of children in a family or the number of cars parked in a parking lot are examples of discrete variables.

Categorical variables, on the other hand, have values that describe a quality or characteristic of a data unit, and they fall into mutually exclusive and exhaustive categories. These variables are qualitative and tend to be represented by a non-numeric value. Categorical variables can be further described as either ordinal or nominal.

Ordinal variables are categorical variables that can be logically ordered or ranked. The categories associated with ordinal variables can be ranked higher or lower than another but do not necessarily establish a numeric difference between each category. Examples of ordinal categorical variables include academic grades (i.e., A, B, C), clothing size (i.e., small, medium, large, extra-large), and attitudes (i.e., strongly agree, agree, disagree, strongly disagree).

Nominal variables are categorical variables that cannot be organized in a logical sequence. Examples of nominal categorical variables include business type, eye color, religion, and brand.

In research, variables are used to measure and quantify different aspects of the phenomenon being studied. They can be numerical or categorical, and they can help researchers organize, analyze, and interpret data.

When it comes to data cleaning, variables are used to identify and address errors or inconsistencies in the data. For example, researchers may check for missing values, outliers, or data entry errors in numerical variables like age or income. They may also check for inconsistent or incomplete data in categorical variables like gender or race. By identifying and correcting these errors, researchers can improve the quality and accuracy of their data.

In data management, variables are used to organize and structure data sets. Researchers may use software programs like SPSS or R to store and manipulate data, and they may use variables to assign labels or codes to different types of data. For example, researchers may use a variable to identify different treatment groups in a clinical trial or to label different survey questions in a social science study.

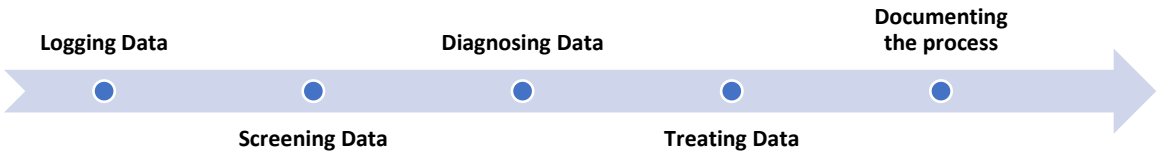
Overall, variables are a fundamental tool for research data cleaning and management. They help researchers ensure the quality and accuracy of their data, and they provide a structured framework for organizing and analyzing research findings.

Here are some examples of how variables can be used in research data cleaning and management:

1. Identifying missing data: When cleaning research data, identify and handle missing data appropriately. By examining the values of a variable, researchers can easily identify if any data is missing or if there are any outliers that need to be handled.
2. Checking for data accuracy: Researchers can use variables to check for data accuracy by comparing the values of one variable against another related variable. For example, if a survey includes both age and date of birth as variables, researchers can cross-check these variables to ensure they are consistent with each other.
3. Creating new variables: Researchers can create new variables by combining or transforming existing variables. For example, if a survey includes separate variables for income and household size, researchers can create a new variable by dividing income by household size to get the average income per person.
4. Recoding variables: Researchers can recode variables to simplify or transform the data. For example, if a survey includes a variable for political affiliation with multiple response options, researchers can recode the variable to group responses into broader categories (e.g., conservative, liberal, moderate).

5. Filtering and selecting data: Researchers can use variables to filter and select specific data for analysis. For example, if a survey includes a variable for gender, researchers can filter the data to only include responses from female participants.
6. Analyzing relationships between variables: Researchers can use variables to analyze relationships between different aspects of the data. For example, if a survey includes variables for age and income, researchers can use these variables to analyze how income varies by age group.

The Data Cleaning Process



1. Data logging system

The first step in processing research data is to **establish a data logging system** to keep track of incoming data until you are ready to conduct comprehensive data analysis. There are different ways to keep track of the data, but most researchers prefer to set up a database that allows them to easily assess what data has been collected. The ability to trace the results of data analysis back to the original forms on which the data was collected is essential for good record-keeping.

To **develop a database structure**, you need to decide how to store the data for the study so that it can be accessed and analyzed later. For simple studies, the same structure used for logging in data can be used for storing it. However, for large complex studies, a separate structure for storing data may be needed. There are generally two options for storing data on the computer: database programs and statistical programs.

In addition to setting up a database structure, you should create **a printed codebook** that describes the data and indicates where and how it can be accessed. The codebook should include important details about each variable, such as the variable name, description, format, instrument/method of collection, date collected, respondent or group, variable location in the database, and notes.
It is crucial to make sure that you have a **backup of the original data**, either by copying it in a separate workbook and naming the sheets appropriately or by saving it in a new file. You should always keep the source files in a separate folder and change its attribute to READ-ONLY to prevent any accidental modification of the files. By implementing these steps, you can ensure that your research data is well-organized and easy to access and analyze.

2. Screening the data

Before conducting any data analysis, screen the dataset and tidy it up to ensure that it is in an easy-to-use format. Tidying the dataset involves harmonizing fonts, aligning text and numbers appropriately, and ensuring that each variable has been turned into a column and each

observation into a row. Blank rows should be removed, and column headers should be clear and visually distinct. Leading spaces should also be deleted.

During the screening phase, it is essential to examine the data for possible errors such as spelling and formatting irregularities, lacks or excess of data, outliers, inconsistencies, remarkable patterns, and suspect analysis results. For instance:

- Are categorical variables written incorrectly?
- Is the date format consistent?
- Are all of the values for numeric fields numbers?
- Do some questions have far fewer answers compared to others?
- Are there duplicate entries or more answers than originally allowed?
- Are there values that are so far beyond the typical distribution that they seem potentially erroneous?
- Are there patterns that suggest that the respondent or enumerator has not answered or recorded questions honestly?
- Do the answers to some questions seem counterintuitive or extremely unlikely?

Data cleaning can be partly automated through statistical software[7] packages such as R and Stata. Descriptive statistic tools can be used during the screening phase to predefine expectations, assumptions, or criteria about normal ranges, distribution shapes, and the strength of relationships. This can facilitate the flagging of dubious data, patterns, or results.

However, screening methods are not only statistical. Many outliers are detected by perceived nonconformity with prior expectations or the norm. This is, for instance, based on the analyst's experience, results from secondary data review, numerical constraints, or common plane sense (weight cannot be negative, people cannot have more than two parents, women cannot bear 35 children, etc.).

Useful screening methods, from simpler to more complex, are:

- Screening of columns after sorting
- Use summary statistics
- Validated and/or double data entry
- Printouts of variables not passing range checks and of records not passing consistency checks
- Frequency distributions and cross-tabulations.
- Graphical exploration of distributions: box plots, histograms, and scatter plots using visual analysis software such as R and SPSS

[7] Step by step guide to data cleaning using excel:
https://cdn.technologynetworks.com/tn/Resources/pdf/the-ultimate-guide-to-cleaning-data-with-excel-and-google-sheets-328002.pdf
Guideline for cleaning data with R:
https://cran.r-project.org/web/packages/cleaner/cleaner.pdf
Guideline for cleaning data with STATA:
Link: https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/132297/filename/132504.pdf

3. Diagnosing Data

The identification or highlighting of an error is followed by diagnosis – finding the cause for this error. To clarify suspect data, review all of a respondent's answers to determine if the data makes sense within the context. Sometimes it is necessary to review a cross-section of different respondents' answers to identify issues such as a skip pattern that was specified incorrectly. There is a multitude of possible diagnoses for each suspected data point:

- **Missing data:** Answers omitted by the respondent (nonresponse), questions skipped by the enumerator, or dropped questions (not asked).
- **Errors:** Typos or answers that indicate the question was misunderstood.
- **True extreme:** An answer that seems high but can be justified by other answers (i.e., the respondent working 60 hours a week because they work a full-time job and a part-time job)

A combination of approaches can be considered for fixing the errors:

- Go back to previous stages of the data flow to see whether a value is consistently the same. This requires access to well-archived and documented data with justifications for any changes made at any stage.
- Look for information that could confirm the true extreme status of an outlying data point. For example, a very low score for weight-for-age might be due to errors in the measurement of age or weight, or the subject may be extremely malnourished, in which case other nutritional variables should also have extremely low values. This type of procedure requires insight into the coherence of the variables. This insight is usually available from experience or lessons learned and can be used to plan and program data cleaning.
- Collect additional information, i.e., question the enumerator about what may have happened and, if possible or necessary, repeat the measurement. Such procedures can only happen if data cleaning starts soon after data collection.

The diagnostic phase of handling missing data can be time-consuming and resource-intensive, with costs, logistics, time, and personnel requirements often being underestimated or overlooked during the design stage of a research or data collection project. However, the use of conditional data entry, such as electronic forms, and starting the process early in the data collection phase can help reduce the resources needed for handling missing data.

For example, using electronic forms with built-in conditional data entry checks can help identify and address missing data in real time during data collection. This can help minimize errors and omissions and reduce the need for extensive data cleaning and imputation during the diagnostic phase. Additionally, starting the process of handling missing data early in the data collection phase allows for the timely identification and resolution of missing data issues, which can help prevent further complications down the line and minimize the resources needed for addressing missing data.

Tips for fixing errors in data

- Use common sense, experience, triangulation, and lessons learned to diagnose the type of error.

- Design your questionnaire form carefully to allow cross-checking between questions.
- Consider the collection of additional information from the enumerator to understand the cause of errors (i.e., debriefings)

Cross-check the following indicators with your data when reviewing for errors.

Data validity: Valid data conform to certain requirements for specific types of information.

For example, suppose you collect data on a survey about the respondents' birthdates. You would want to ensure that the date format is consistent, such as dd-mm-yyyy, and that the day field only allows numbers up to 31, the month field up to 12, and the year field up to the current year. This way, if someone enters a date outside of these valid ranges, the form will not be submitted.

Data accuracy: In measurement, accuracy refers to how close the observed value is to the true value.

For example, suppose you ask respondents how often they go grocery shopping in person, and some of them select 'biweekly' as their answer. However, this word can mean either twice a week or once every two weeks, and these are two very different frequencies. This inaccuracy in data is due to inadequate response items, and it can significantly affect your analysis results.

Data completeness: Complete data are measured and recorded thoroughly, whereas incomplete data are statements or records with missing information.

For example, in a survey, researchers may record answers partially due to a lack of attention or because the form did not record it, or the voice recorder did not work. Incomplete data can be problematic because it can be challenging to reconstruct missing data accurately. Sometimes, you might be able to contact a participant and ask them to redo a survey or an interview, but you might not get the answer you would have otherwise.

Data consistency: Clean data are consistent across a dataset. For each member of your sample, the data for different variables should line up logically.

For example, in a survey, you collect information about demographic variables, including age, ethnicity, education level, and socioeconomic status. One participant enters ’13’ for their age and masters-level education as their highest attained degree. These data are inconsistent because it is highly unlikely for a 13-year-old to hold a master's degree in your specific sample. It is more likely that an incorrect age was entered.

Data uniqueness: In data collection, you may accidentally record data from the same participant twice.

For example, in a survey, a researcher submits a form twice without noticing. The data gets reported twice on your end, and it can significantly affect your analysis results. Thus, review your data for identical entries and remove any duplicate entries in data cleaning.

Data uniformity: Uniform data are reported using the same units of measure. If data are not all in the same units, they need to be converted to a standard measure.

For example, in a survey, you ask participants to enter their income in Afghani (AFN). Some participants respond with Pakistani rupees (PKR) or Iranian Rials (IRR). During data cleaning, you should detect these errors and convert them to a uniform unit to ensure data uniformity.

4. Treating the data

After identifying missing values, errors, and extreme or normal values, analysts must decide what to do with problematic observations. There are several options available:

1. **Leave it unchanged:** This is the most conservative course of action, where the data is accepted as a valid response, and no changes are made. The decision becomes more difficult with smaller sample sizes, as one suspicious response can significantly affect the analysis.
2. **Correct the data:** If the respondent's original intent can be determined, correct the answer. For example, after discussing with the enumerator, it is clear that the respondent meant the lack of income instead of too much income.
3. **Delete the data:** When the data seems illogical and the value is far from the norm, it can affect descriptive or inferential statistics. In such cases, analysts may consider deleting just the response or the entire record. However, deleting data poses a risk of consciously or subconsciously "cherry-picking" data to obtain the preferred results. To understand the impact of deleting a data point, analysts can create a binary variable, where '1' represents a suspicious record and '0' represents a non-suspicious record. This new variable can be used as a record filter in Pivot tables or in-table filtering to understand the impact of potentially erroneous data in the final results.

Analysts must carefully consider their options for treating problematic observations and their potential impact on the analysis.

5. Focus on the missing values

Missing values require special attention when dealing with messy data. The first step is to decide which blank cells should be filled with zeros to represent genuine negative observations, such as "no," "not present," or "option not taken." Blank cells can also be left empty if the convention is to use blanks for missing or N/A for "not applicable." Alternatively, some analysts may choose to replace blank cells with an explicit missing value code, such as 999, to indicate "do not know."

But what about the remaining blank cells? Missing values can be classified as either random or non-random:

- Random missing values may occur because the subject inadvertently did not answer some questions. This may be due to factors such as an overly complex or lengthy assessment, enumerator fatigue or inattention, or data entry mistakes. If there are only a small number of missing values in the dataset (typically, less than 5%), it is highly likely to be a random missing value.
- Non-random missing values may occur because the participant purposefully did not answer some questions. This can happen when the question is confusing, inappropriate, or perceived as sensitive. Missing data may also be related to one or more characteristics of the respondent, such as gender, where females are more likely to refuse a question on income compared to male respondents.

The default approach for dealing with missing values is to exclude them from analysis, and there are two common methods for this:

- Listwise/casewise deletion: This method removes all cases (respondents) that have any missing values. If only one variable is being analyzed, listwise deletion simply analyzes the data that is available. However, when analyzing multiple variables, listwise deletion removes entire cases if there are missing values on any of the variables, resulting in loss of data even if some questions were answered. This is often the preferred option for handling missing values.
- Pairwise deletion: Unlike listwise deletion, pairwise deletion only removes specific missing values from the analysis, not the entire case, and includes all available data. When conducting a correlation analysis on multiple variables, this method enables a bivariate correlation between all available data points and only ignores those missing values if they exist on some variables. Pairwise deletion is useful when the sample size is small or when missing values are large, as there are not many values to start with. However, it can result in different sample sizes for each variable.

Note that in these techniques, "deletion" means exclusion within a statistical procedure, not deletion (of variables or cases) from the dataset.

Deleting cases with missing values is another option to handle missing data, but it has potential drawbacks. This approach results in complete data for the remaining cases, but it reduces the sample size. Smaller sample sizes can lead to decreased statistical power, wider confidence intervals, and potentially biased results, especially if the missing values are not random. Additionally, in small datasets, removing cases with non-random missing values may result in an insufficient sample size, which can affect the representativeness of the sample and limit the generalizability of the findings. Therefore, caution should be exercised when using complete case deletion as a method to handle missing data, and other approaches, such as imputation, should be considered as well.

The last option is **imputation, a method to handle missing data by replacing it with estimated values**. One approach is to replace missing values with the mean or median of the variable. Another method is hot-deck imputation, which uses values from complete records of similar cases in the same dataset. Imputation helps preserve all cases in the dataset, but caution should be exercised as imputed values are estimates and may introduce uncertainty into the analysis.

6. Documenting changes

Proper documentation of all changes made during the data cleaning process is crucial to ensure data quality and avoid errors. It also enables other analysts to understand what changes have been made to the data since it was last accessed. Create a change log within the workbook to create an audit trail of all modifications. The change log should include the following information:

- Table name (if multiple tables are implemented)
- Column and row numbers
- Date of the change
- Name of the person who made the change

- Old Value
- New Value
- Comments (optional)

Documenting all changes made during the cleaning process allows easy error checking and recovery of any errors made. It also ensures that the data remains fit for use and is transparent to users. When sharing the dataset, enclosing the change log in a separate worksheet is essential to make the information available for users.

Furthermore, try documenting the data processing and cleaning steps and procedures that were implemented, including who performed them, the number of responses affected, and which questions were modified. This information will provide transparency and allow future users to understand the changes made to the data.

Examples of data management and cleaning

Providing examples from real datasets is beyond the scope of this research reference guide; however, you can see some hypothetical examples to illustrate how these steps can be implemented in data cleaning. Here are some examples of research contexts and the data-cleaning process:

Example 1: A study on access to healthcare in a rural community in Bamiyan.

1. The data collection process involved a survey administered by trained enumerators who spoke the local language. The surveys were then digitized using a software program.
2. During the data cleaning process, missing values were identified and classified as random or non-random. Non-random missing values were investigated to determine if they were due to participant refusal to answer a question or survey error.
3. Outliers were identified by comparing responses to the rest of the sample and were removed if they were deemed to be implausible or erroneous.
4. Variables were recoded or merged if necessary to ensure consistency and to enable analysis.
5. The cleaned dataset was then analyzed to identify patterns and associations between variables.

Example 2: A study on water quality in a peri-urban community in Herat.

1. The data collection process involved water samples being collected from multiple sources and tested for various contaminants in a laboratory.
2. During the data cleaning process, outliers were identified and removed if they were deemed to be implausible or erroneous.
3. Missing values were identified and investigated to determine if they were due to sample contamination or lab error.
4. Variables were recoded or merged if necessary to ensure consistency and to enable analysis.
5. The cleaned dataset was then analyzed to identify patterns and associations between water quality and various factors such as the source of water and distance to the nearest health clinic.

Example 3: A study on maternal health in a remote area of Paktia.

1. The data collection process involved surveys administered by community health workers who were trained to ask sensitive questions related to maternal health. The surveys were then digitized using a software program.
2. During the data cleaning process, missing values were identified and classified as random or non-random. Non-random missing values were investigated to determine if they were due to the participant's actual refusal to take part in the survey or a survey administration error.
3. Data inconsistencies were identified and resolved by cross-checking responses within the same survey and between different surveys.
4. Variables were recoded or merged if necessary to ensure consistency and enable analysis.
5. The cleaned dataset was then analyzed to identify patterns and associations between maternal health and various factors such as age, education, and access to healthcare.

In each of the examples above, as you can see, the data cleaning process was critical to ensuring the accuracy and reliability of the data. This is especially important in third-world countries where resources may be limited, and the data collection process may be more challenging.

Key Points

In summary, the main takeaways from this chapter are:

When making the team for data management, consider:

- Train the data entry operators on how the questionnaire is populated.
- If possible, include data entry staff in the data collectors training to facilitate internal communication.
- Establish decision rules for when to change a value and when NOT.
- Establish procedures to document data that was modified or not collected, i.e., "missing", or "not collected".
- Explain how to use the change log file to keep track of the changes in the file.
- Communicate to data entry operators or analysts the procedures to be followed and who to inform of detected errors.
- Establish communication channels for communicating detected errors. Written communication is recommended.
- Verify the sampling strategy and make sure it is well understood by the team.

When reviewing the data/records:

- Compare records with other tracking spreadsheets where you tracked the visited locations, for example, field visit plan, provincial survey plan, etc.
- Assign a unique ID for each site or household interview/survey submission.
- Regularly check for duplicate cases in each of the data rows.
- Remove any blank cases where the key variables have been entered, but there are no data in any of the variables.
- Verify first that the blank cases should be removed and how this could affect other data in the row.

When screening, diagnosing, and treating data:

- First, clean filter questions, i.e., when the population is asked if they did or had a particular activity based on a response (yes/no). In that case, there should be data in the following table in the questionnaire (or column in the database) if the response is "yes," or there should be no data if the response is "no".
- Review the skip rules within the questionnaire and run the checks in the database to look for invalid or missing values in variables based on the skip rules.
- Clean questions with minimum or maximum response values ("tick three options only", what are the top three priorities among the five following choices?", etc.).
- Inspect the remaining variables sequentially and as they are recorded in the data file. Create a general summary table of descriptive statistics, where for each variable, the minimum, maximum, mean, median, sum, and count are available.
- If the variable is a categorical/qualitative variable, check if the spelling is consistent and run a frequency count.
- All values should have labels if the variable is categorical.
    - Check for the range of values.
- If the variable is a continuous/interval variable, run descriptive statistics such as minimum, maximum, mode, mean, and median.

    - Look at minimum and maximum values.
    - Are they reasonable?
    - Look if “0” are really “0” and not missing values.
    - Is the mean and median as expected?
- Inspect data for missing values (blanks, explicit missing-value codes).
    - Decide: Which blank cells need to be filled with zeros (because they represent genuine negative observations, such as ("no", "not present", "option not taken", etc.)
    - Which to leave blank (if the convention is to use blanks for missing or not applicable)
    - Which to replace with some explicit missing value code (if we want all missing to be explicitly coded).
- Verify that in binary variables (yes/no), the positive value is coded as “1”, the negative as “0”.
    - Check for the distribution of the values (use box plots if available).
    - Look at the extremes and check them against the questionnaire, even if the value is possible and may seem reasonable.
    - If it is an extreme, other variables may be incorrect as well.
    - Look out for the five smallest/largest values.
- Compare the data between two or more variables within the same case to check for logical issues. i.e., can the head of the household be less than 17 years old?
    - Compare age with marital status.
    - Is the person too young to have been married?
    - Do the proportions sum up to 100%?
- Where there are questions asking about a “unit”, the data must standardize to a specific unit, i.e., when a response is collected using the unit specified by the respondent. For instance, units for the area can be acre, hectare, and square meters. To standardize the area unit, a lookup table can be used to merge the conversion value to convert all areas to hectares.
- Check for consistencies within a set of cases: If there is a spouse, it is expected the spouse will be a different gender. The child of the head of the household is not expected to be older than the head. The parent of the head cannot be younger than the head.
- Recode variables. Replace unhelpful entries (e.g., misspellings, verbose descriptions, category “others”, etc.) with more suitable variants in a consistent manner. Reasons for recoding are spelling corrections, date (day, month, year) formatting, translation, language style and simplification, clustering, pre-fixes to create better sorting in tables, combination (in categorical variables), rounding (in continuous variables), and possibly others.
- Sort the file in various ways (by individual variables or groups of variables) to see if data errors that were not found previously can be identified.

Checklist

When managing and cleaning data, you should feel confident saying 'yes' to the following questions/statements.

1	Setup a data logging structure	☐
2	Screening: check for lack or excess of data and ensure compulsory columns are filled properly.	☐
3	Screening: check for spelling and formatting errors	☐
4	Screening: standardize naming	☐
5	Screening: set a uniform formatting structure across all your data/datasets	☐
6	Diagnosis: look for missing data (blank fields)	☐
7	Diagnosis: identify abnormalities in the data	☐
8	Diagnosis: if you are still in doubt, go back to the previous stages of the data and, see for inconsistencies/consistencies, collect additional information to confirm	☐
9	Diagnosis: use common sense, experience, triangulation, and lessons learned to diagnose errors.	☐
10	Treatment: correct data and remove duplicate entries	☐
11	Deal with blank/missing values: decide if you want to delete, populate, or collect more data to fill in the blanks.	☐

Further Reading

R Studio:

- Data Cleaning with R (DataCamp): https://www.datacamp.com/courses/data-cleaning-with-r
- Data Wrangling with R (DataCamp): https://www.datacamp.com/courses/data-wrangling-with-r
- Efficient Data Manipulation with R (DataCamp): https://www.datacamp.com/courses/efficient-data-manipulation-with-r

Stata:

- Stata for Researchers: Data Management (LinkedIn Learning): https://www.linkedin.com/learning/stata-for-researchers-data-management
- Introduction to Data Management in Stata (YouTube): https://www.youtube.com/watch?v=62Jf6GKB-n0
- Cleaning Data in Stata (University of Bristol): https://www.bristol.ac.uk/media-library/sites/cmm/migrated/documents/stata-cleaning.pdf

Excel:

- Excel Data Cleaning and Management (LinkedIn Learning): https://www.linkedin.com/learning/excel-data-cleaning-and-management
- Cleaning Data in Excel (Microsoft): https://support.microsoft.com/en-us/office/cleaning-data-in-excel-69aed1d9-57a5-4b76-8f52-0c51e6a4d87d

SPSS:

- SPSS Tutorials: Data Management (IBM): https://www.ibm.com/support/knowledgecenter/SSLVMB_27.0.0/statistics_cru_guide_ddita/spss/tutorials/data_management_intro.html
- Data Preparation in SPSS (YouTube): https://www.youtube.com/watch?v=0iqgbf9YzxA
- Introduction to Data Management in SPSS (LinkedIn Learning): https://www.linkedin.com/learning/introduction-to-data-management-in-spss

CHAPTER 15: BASICS OF QUANTITATIVE AND QUALITATIVE DATA ANALYSIS

Contents

This chapter provides an overview of the basic concepts and techniques for quantitative and qualitative data analysis. The chapter includes:

- Introduction to the fundamentals of data analysis, including different approaches and methods.
- Step-by-step guidelines for conducting descriptive quantitative analysis, providing readers with a clear understanding of the process.
- Step-by-step guidelines for coding, categorizing, and analyzing qualitative data, offering practical insights into handling qualitative data.

By the end of this chapter, readers will have a solid understanding of the basic principles of both quantitative and qualitative data analysis and will be equipped to apply these techniques in their own research projects.

Introduction to Basics of Data Analysis

Data analysis is the process of systematically examining and interpreting data to derive useful insights or conclusions from it. Data analysis allows you to draw meaningful conclusions from the data that you have collected. This is because social science research often involves studying human behavior, attitudes, and perceptions, which can be difficult to measure and analyze. Data analysis helps researchers to identify patterns, trends, and relationships within the data, which can then be used to develop theories and make predictions about social phenomena.

One of the challenges of social science research is that many of the variables of interest are not directly observable or measurable. For example, a researcher might be interested in studying the impact of gender-based violence on mental health outcomes. Gender-based violence is a complex issue that can be difficult to measure, as it involves various forms of violence against women, such as physical and emotional abuse. Data analysis techniques can help researchers identify the underlying factors contributing to gender-based violence and model the relationships between gender-based violence and mental health outcomes.

Another key aspect of data analysis in social science research is qualitative data. Qualitative data refers to non-numerical data, such as interview transcripts, field notes, and documents. Qualitative data analysis typically involves identifying themes and patterns in the data and developing theories and hypotheses based on these patterns. Qualitative data analysis can be used to complement quantitative data analysis, providing a more nuanced understanding of social phenomena.

Overall, data analysis is an essential tool for social science research, helping researchers to make sense of complex data and to draw meaningful conclusions from their research.

Data Analysis Process

Data analysis is a complex process that involves working with actual data, setting goals, understanding relationships, making decisions, and generating new ideas. There are various ways to conceptualize the data analysis process. Still, there are generally two main approaches - a linear approach and a cyclical one.

A **linear approach** involves following a fixed order of stages from beginning to end, which can help provide structure and organization to the process. However, it may not be the most realistic approach when working in a resource-limited and insecure research context.

On the other hand, a **cyclical approach** offers greater flexibility in working on different components of the process at different times and in different sequences as long as everything comes together in the end. As seen in the figure below, each stage can build upon the previous one, allowing the research team to learn and improve the process as they go.

A wide range of procedures and methods available for data analysis can be applied to different settings, from small and unstructured data collection to large-scale surveys in complex settings. Understanding these procedures and methods is crucial in making sense of the data and drawing valid conclusions.

Since there are two basic types of data - quantitative and qualitative - each is covered separately in this section with relevant examples. Knowing data analysis procedures and methods enables researchers to work effectively with data and gain valuable insights from their research.

Quantitative Analysis

Refresher: there are two types of data: quantitative, which is numerical and can be measured using statistical methods, and qualitative, which is non-numerical and typically collected through observation or interviews.

There are several types[8] of **quantitative analysis** that can be used in data analysis. Here are some common ones:

Descriptive Analysis: This type of analysis focuses on describing the basic features of the data. It includes measures of central tendency (mean, median, mode) and measures of variability (range, standard deviation). We will discuss each term used here in much detail in the quantitative analysis section.

[8] Note: In this research guide, we will only discuss descriptive statistics. Additional links and resources will be provided in the 'further reading' section if you want to learn more about other types of quantitative analysis including using specific software packages such as R studio, SPSS, STATA, and others.

Inferential Analysis: This type of analysis involves drawing conclusions about a larger population based on a smaller sample of data. It uses techniques such as hypothesis testing and confidence intervals to make inferences about the population.

Correlational Analysis: This type of analysis looks at the relationship between two or more variables. It includes techniques such as correlation coefficients, scatter plots, and regression analysis.

Please note that these types of quantitative analysis are not mutually exclusive and can be used in combination to answer research questions and make data-driven decisions.

Quantitative data analysis procedures

In quantitative analysis, you can analyze one variable at a time (univariate analysis) or compare two or more (bivariate and multivariate analysis).

1. Univariate analysis

Quantitative data analysis procedures involve analyzing and interpreting data using statistical methods. Univariate analysis, also known as descriptive statistics, focuses on analyzing one variable at a time, while bivariate and multivariate analysis involves comparing two or more variables.

To conduct univariate analysis, you can use programs like SPSS, STATA, and Excel to calculate measures of distribution, central tendency, and variability. These measures include frequency distribution, which summarizes the frequency of every possible value of a variable in numbers or percentages, central tendency, which estimates the center or average of datasets; and variability, which measures how spread out the values are.

The frequency distribution can be presented in tables or graphs, as seen in the examples provided. For instance, you can use a simple frequency distribution to compare the participation of males and females in a survey. Group frequency distribution can also be used to compare age groups in a survey.

Central tendency measures include mean, median, and mode. The mean is the arithmetic average of the scores, while the median is the middle or 50th percentile score. The mode is the most frequent number that occurs in the dataset. Examples of how to calculate these measures have been provided.

In summary, univariate analysis involves analyzing one variable at a time using measures of distribution, central tendency, and variability. Programs like SPSS, STATA, and Excel can be used to calculate these measures, and they can be presented in tables or graphs. Measures of central tendency, such as mean, median, and mode, can also be calculated to estimate the center or average of datasets.

- Distribution – frequency of each value
- Central tendency - the average of the values

    - Mean
    - Median
    - Mode
- Measure of variability – how spread out the values are
    - Range
    - Standard deviation
    - Variance

We will discuss each of these concepts in the paragraphs below.

i. Distribution – frequency of each value

A data set, primarily, is made up of distribution of values, or scores. In tables or graphs, you can summarize the 'frequency' of every possible value of a variable in numbers or percentages. For example, the tables below distribute the number of survey participants using simple frequency distribution and group frequency distribution by their age.

Simple frequency distribution

Gender	# of participants	Percent
Male	182	44%
Female	235	56%
Total	417	100%

In the table above, you can see that in the survey, females have higher participation (56%) than males, which is 44%. In the next example, you can see group distribution which compares age groups. For example, participants ranging from 26 to 30 years of age have higher participation (28%), followed by 31 to 40 at 23%.

Group frequency distribution

Age Category	# of Survey Participants	Percent
18 - 22	212	11%
23 - 25	321	17%
26 - 30	545	28%
31 - 40	434	23%
41-50	234	12%
51- 60	124	6%
60+	54	3%
Total	1924	100%

ii. Measuring central tendency

It estimates the center or average of datasets. For example, review the following examples calculating the mean, median, and mode.

1. **Mean = "arithmetic average" of the scores**

For example, scores = 64, 70, 80, 80, 90, 98, 100.
Mean = sum of values divided by the number of scores:
64 + 70 + 80 + 80 + 90 + 98 + 100 = 582
582 ÷ 7 = **83.14**

2. **Median = score in the middle (or 50th percentile).**

Example 1: Median scores = 64, 70, 80, 80, 90, 98, 100
If # scores = odd: Find the score in the middle
64, 70, 80, [80], 90, 98, 100 **Median = 80**

Example 2: Median scores = 64, 70, 80, 80, 90, 98, 100, 100
If # scores = even: Average the 2 in the middle 64, 70, 80, [80, 90,] 98, 100, 100 80 + 90 = 170
170 ÷ 2 = 85 **Median = 85**

3. **Mode = the most frequent number**

The number that occurs the highest number of times

Example 1: scores = 64, 70, 80, 80, 90, 98, 100 **Mode = 80**
Example 2: scores = 64, 70, 80, 80, 90, 98, 100, 100 **Modes = 80, 100**

Note: *Many people confuse data analysis with complicated computer programs, but simple data analysis procedures involve using a pencil, notepad, and calculator. Other procedures can be accomplished using features of Excel software. Visit this link for doing descriptive analysis using Excel: https://worldsustainable.org/descriptive-statistics-with-excel/?utm_content=cmp-true.*

iii. Measures of variability

Measures of variability give you a sense of how spread out the response values are. The range, standard deviation, and variance each reflect different aspects of your data layout. The following discusses each topic in sequence.

Range: measuring the range gives you an idea of how far apart the most extreme response scores are. To find the range, simply subtract the lowest value from the highest value.

For example, the range of visits to the library in the past year is:
Ordered data set: 0, 1, 5, 19, 20, 24, 28, 30
Range: 30 – 0 = 30

iv. The standard deviation - STDV

The standard deviation (STDV) measures the variability in your dataset, which indicates, on average, how far each score deviates from the mean. A larger standard deviation indicates that the dataset is more variable, while a smaller standard deviation indicates that the dataset is more consistent. To calculate the standard deviation, follow these six steps:

1. Find the mean of your dataset by adding up all the scores and dividing by the number of scores.
2. Subtract the mean from each score to get the deviation from the mean.
3. Square each deviation.
4. Add up all of the squared deviations.
5. Divide the sum of the squared deviations by the number of scores minus one (N-1).
6. Take the square root of the result to get the standard deviation.

The purpose of calculating the standard deviation is to determine if the mean accurately represents the dataset. A standard deviation of zero indicates that every value in the dataset is exactly equal to the mean, while a higher standard deviation means more variation in the data, and the mean may not accurately represent the dataset. For a better understanding of how this works, refer to the following table of test results for students before and after attending training:

# of participants	Pre-test scores	Post-test scores
Participant 1	85	120
Participant 2	76	85
Participant 3	73	73
Participant 4	80	70
Participant 5	72	80
Participant 6	84	34
Participant 7	79	72
Average	78	76
Standard Deviation - STDEV	5.1	23

For the pre-test, the standard deviation is 5.1, which tells us that the majority of the scores are no more than 5.1 points away from the mean. Is that good? Well, yes, it indicates that the scores of participants in the pre-test were close to each other, and their level of knowledge of the subject is also consistent.

For the post-test, the standard deviation is 23. It shows that there is a huge dispersion (spread) in the scores, meaning that some participants performed much better and/or some performed far worse than the average.

In practice, the standard deviation is often used by social scientists and researchers as a measure of research accuracy - the higher the standard deviation, the higher the degree of error.

v. Variance of data

Questions to ask when working when looking for variance in your data.

- How do scores/data differ?
- What are the differences between individuals in a group?
- What is the range of outcomes?

For example, 50 participants rate training using the following evaluation form to measure its effectiveness:

I acquired new knowledge and skills:

Strongly disagree	Disagree	Agree	Strongly Agree
☐	☐	☐	☐

The results came as:

Strongly disagree	Disagree	Agree	Strongly Agree
45	3	1	1

In this example, the variance is small (or low variability). Staff strongly disagreed and felt that the training did not lead them to acquire new knowledge and/or skills. In the second training, consider the responses to the statement:

I acquired new knowledge/skills.

Strongly disagree	Disagree	Agree	Strongly Agree
15	13	14	8

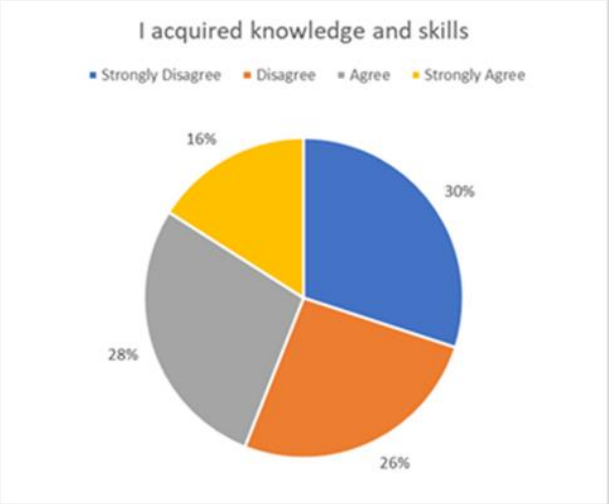
Unlike the previous two examples, the variance in this example is large (or high variability). In this example, training participants had divided opinions as to whether they acquired new knowledge and/or skills. There are many ways to convey the same information. Below are three additional ways to display the same data.

I acquired new knowledge and skills:

Scale of measurement - Likert	Scores
Strongly Disagree	15
Disagree	13
Agree	14
Strongly Agree	8
Total	50

I acquired new knowledge and/or skill:

Scale of measurement - Likert	Percentage
Strongly Disagree	30%
Disagree	26%
Agree	28%
Strongly Agree	16%
Total	100%



The importance of measuring variance is that it demonstrates differences. Once the difference is identified, then you can seek an explanation and determine if it is significant. In the above examples, you might determine that the first training was not valuable to staff, and you may reconsider the topic or the person delivering the training. For the second training, you could consider the target audience and re-evaluate the material being covered and appropriateness for some staff such as trainers vs. trainees. In these cases, further information may be needed as to why there was low or high variability in the responses.

To find the variance, simply square the standard deviation. Consider the example of pre and post-tests.

# of Participants	Pre-test Scores	Post-test Scores

Participant 1	85	120
Participant 2	76	85
Participant 3	73	73
Participant 4	80	70
Participant 5	72	80
Participant 6	84	34
Participant 7	79	72
Average	78	76
Standard Deviation - STDEV	5.1	23
Variance	25.6	529

If the STDEV of the pre-test is 5.1, the variance will become 5.1 squared = 25.6, and for 23, it is 529. In other words, the variance between results received in the pre-test is lower in comparison to the high variance of the post-test.

vi. Summary of univariate descriptive statistics

In summary, a common univariate descriptive statistics analysis includes average, mean, median, mode, standard deviation, variance, range, minimum and maximum. For example, a descriptive analysis of the pre-test scores in the table above looks like this:

Univariate Descriptive Statistics of the test scores	
Average	78
Mean	78
Median	79
Mode	#N/A
Standard Deviation	5.1
Sample Variance	25.6
Range	13
Minimum	72
Maximum	85
Sum	549

2. Bivariate descriptive statistics

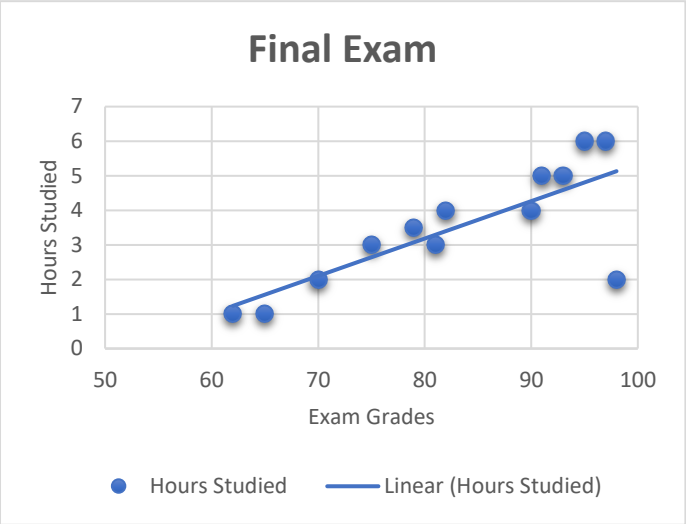
If you have collected data on more than one variable, you can use bivariate or multivariate descriptive statistics to explore whether there are relationships between them. In bivariate analysis, you simultaneously study the frequency and variability of two variables to see if they vary together. You can also compare the central tendency of the two variables before performing further statistical tests. Multivariate analysis is the same as bivariate analysis but with more than two variables.

Contingency tables: In statistics, a contingency table (also known as a cross-tabulation or crosstab) is a type of table in a matrix format that displays the (multivariate) frequency distribution of the variables. In a contingency table, each cell represents the intersection of two variables. Usually, an independent variable (e.g., hours studied) appears along the vertical axis or columns, and a dependent one appears along the horizontal axis or rows (e.g., students). You read 'across' the table to see how the independent and dependent variables relate to each other.

Training participants – disaggregated by gender.

Students	Hours Studied	Exam Grade
Student 1	2	70
Student 2	4	90
Student 3	4	82
Student 4	1	62
Student 5	3	75
Student 6	1	65
Student 7	5	93
Student 8	5	91
Student 9	3	81
Student 10	3.5	79
Student 11	2	98
Student 12	6	95
Student 13	6	97

Figure 5: Example of a scatter plot visualizing a bivariate data.



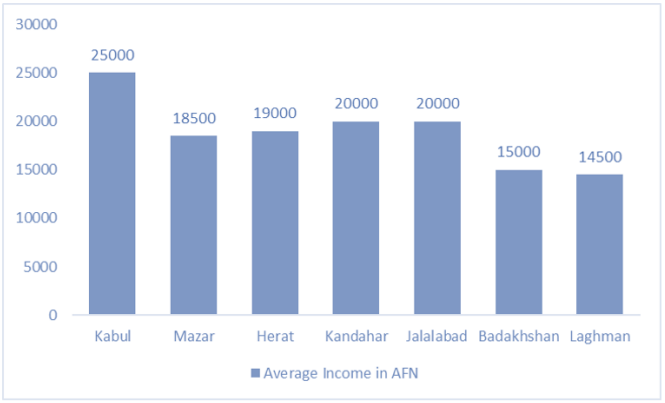
The purpose of bivariate analysis is to understand the relationship between two variables. There are usually two common ways to do so: scatterplots and correlation coefficients. Let us take the example in the table above and analyze the relation between hours of study and exam grades. In the scatter plot, you can clearly see that there is a positive relationship between longer study time and higher grades.

3. Visualizing data

Visualizing data involves creating and considering a visual display of data. Although it is not technically a form of analysis, visualizing data can be a useful starting point before delving into more in-depth analysis, for a detailed discussion on data visualization in social research. Please refer to Annex 6 to explore commonly used visuals (e.g., charts, graphs, histograms, etc.) in research studies.

To illustrate the benefits of visualizing data, consider the following example of income levels in several provinces in Afghanistan:

Provinces	Average Income
Kabul	25000 AFN
Mazar	18500 AFN
Herat	19000 AFN
Kandahar	20000 AFN
Jalalabad	20000 AFN
Badakhshan	15000 AFN
Laghman	14500 AFN



Although this table is readable, visualizing the data can provide a better perspective. By creating a visual display of the data, such as a bar chart or a line graph, we can begin to identify patterns and understand the differences between provinces in terms of average income. It is worth noting that visualizing data is not a substitute for analysis, but it can provide an effective foundation to guide subsequent analysis.

Qualitative Data Analysis

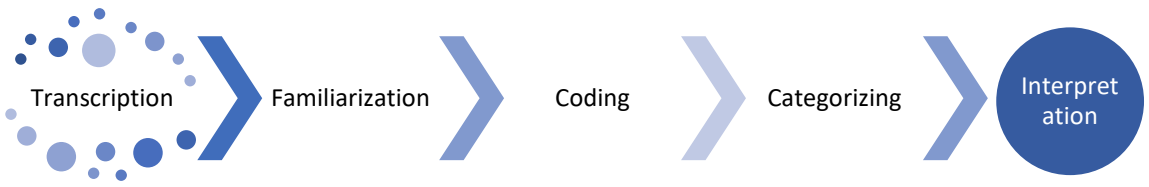
Qualitative analysis is a research method that involves examining non-numerical data such as words, images and sounds to identify patterns, themes, and meanings. It is used to gain a deeper understanding of social phenomena and to explore how people make sense of their experiences and the world around them. Qualitative analysis typically involves transcribing interviews or observations, coding the data, and analyzing the patterns and themes that emerge. The goal is to identify insights and develop detailed descriptions of the research participants' experiences and perspectives.

There are several types of qualitative analysis, each of which can be used to uncover different types of insights and data from qualitative data. Some common types of qualitative analysis are listed below:

- **Content analysis:** This type of analysis involves examining and categorizing the content of text data (such as interviews, focus group discussions, or surveys) in a systematic way to identify patterns, themes, and relationships between different ideas or concepts.
- **Narrative analysis:** Narrative analysis focuses on the stories people tell about their experiences and uses storytelling as a way to understand how people make sense of their lives and the world around them.
- **Discourse analysis:** This type of analysis delves into the intricate ways in which language is employed to construct meaning and shape perceptions of reality. It seeks to understand the social and cultural context in which language is used and how power dynamics are manifested through language use. By exploring how language is employed in different social contexts, this analysis sheds light on how language serves as a reflection of power dynamics and influences the construction of reality in various social and cultural settings.
- **Grounded theory:** Grounded theory is a method for developing a theory from data that is discovered inductively. It involves generating hypotheses and testing them against data to see if they make sense and then revising the hypotheses accordingly.
- **Ethnography:** Ethnography involves the study of a culture or community by observing and participating in its daily activities. It typically involves long-term fieldwork and can provide rich, detailed data about a particular group or community.
- **Phenomenology:** Phenomenology is a philosophical approach that focuses on understanding the subjective experiences of individuals. It involves analyzing the meaning of individual experiences and how people make sense of the world around them.

These are just a few examples of the types of qualitative analysis. Different approaches may be more appropriate depending on the research question and the nature of the data being analyzed.

Qualitative data analysis process



1. **Transcription:** The first step in the qualitative analysis process is to transcribe your data. This involves taking your recorded interviews or other data and converting them into text format.
2. **Familiarization:** Once you have your data in text format, the next step is to become familiar with it. This involves reading through your data multiple times to gain an understanding of the overall content and to identify patterns and themes.
3. **Coding:** After becoming familiar with your data, you can start to identify and assign codes to different sections of text. These codes are keywords or phrases that capture the essence of the text, and they allow you to organize your data into meaningful categories.
4. **Categorizing:** Once you have assigned codes to your data, you can start to categorize them into broader themes. This involves grouping together similar codes into overarching themes, and it allows you to identify patterns and trends within your data.
5. **Interpretation:** Once you have categorized your codes into themes, you can start to interpret your data. This involves analyzing your themes to draw conclusions about your research question or hypothesis.

The passages below explore each of the above steps in detail:

1. Transcribe your audio files

Transcribing qualitative data refers to the process of transcribing audio or video recordings of interviews, focus groups, or other qualitative data into written or text format. It involves listening to the recordings carefully and accurately, transcribing the spoken words into a written document, often using specialized software or tools.

Transcribe the qualitative data as accurately and completely as possible. Here are some tips for effective transcription:

- **Use high-quality audio equipment:** Make sure you have a good-quality microphone and recorder to ensure that the audio is clear and easy to understand.
- **Listen carefully:** Take the time to listen to the recordings carefully and transcribe everything that is said, including any pauses, hesitations, or background noises.
- **Use a consistent format:** Develop a consistent format for your transcriptions, including font, spacing, and formatting. This will make it easier to read and analyze the data later.
- **Use transcription software:** Consider using transcription software to make the process easier and more efficient. There are many options available, such as TranscribeMe, Otter, and Temi.
- **Label and organize the files:** Make sure to label the files clearly and organize them in a way that makes sense to you. This will help you keep track of the data and make it easier to find what you need later.

- **Take breaks:** Transcribing can be a tedious and time-consuming process, so make sure to take regular breaks to avoid burnout and maintain accuracy.

Transcribing qualitative data is a vital step in the data analysis process and should be approached with care and attention to detail.

Tips for organizing and naming your qualitative data

Use a consistent naming convention: Develop a consistent naming convention for your files, such as including the date, project name, and participant name/number. For example, "ProjectName_InterviewDate_ParticipantNumber" (e.g., "AfghanistanProject_2022-04-01_P1").

Use subfolders: Organize your data into subfolders by type (e.g., interviews, focus groups, field notes) or by date. This can make it easier to find and access specific files.

Use clear and descriptive file names: Use file names that clearly describe the content of the file. Avoid using generic names like "interview" or "notes" that can be easily confused with other files. Instead, use descriptive names like "InterviewTranscript_ParticipantName" or "FieldNotes_ObservationDate".

Consider using a spreadsheet: If you have a large amount of data, consider using a spreadsheet to keep track of the files, their location, and any notes or observations about the content.

Backup your data: Always make sure to back up your data to ensure that it is not lost in the event of a computer crash or other technical issue. Store your data in multiple locations, such as an external hard drive, cloud storage, or a secure server.

2. Familiarize yourself with the data

After sorting your data, the next step involves reviewing and familiarizing yourself with the data. To begin, review the data thoroughly to gain a sense of the overall content, patterns, and themes that emerge. This can involve reading through the data multiple times, taking notes, and creating an overall summary of the content. Also, ensure that the data is properly transcribed and organized, including creating clear labels and headings and using consistent formatting. In brief, during this step, you will have to:

- Read or listen to the data repeatedly.
- Take notes about important features of the data.
- Identify any initial thoughts or impressions about the data.
- Look for patterns or themes that emerge in the data.

When reading through qualitative data for the first time, approach it with an open mind and without any preconceived notions. The goal is to immerse oneself in the data and get a general sense of what it is all about. Here are some steps to follow:

Start by reading through the data multiple times, taking note of any initial impressions or ideas that come to mind. It can be helpful to read the data in different ways - for example, reading it all the way through first, then going back to read it more closely, or taking notes as you read.

Suppose you are conducting a study on the experiences of women in Afghanistan; you might begin by reading through transcripts of interviews with Afghan women multiple times, taking note of any initial impressions, such as common themes that emerge or particular quotes that stand out.

Take notes as you read to capture important information and ideas. This can include noting down specific quotes or examples that illustrate key points, as well as any questions that come to mind. For example, while reading through the interview transcripts, you might take note of quotes where women discuss their experiences of discrimination in the workplace or the challenges they face accessing education.

In this stage, **develop a codebook** as a tool to help organize and keep track of codes. A codebook is a document that contains a list of all the codes that have been developed during the coding process, along with definitions and examples of how they are applied to the data.

Please note that the codebook used for qualitative analysis and review of data is different than the one referenced in the data cleaning and management chapter.

To develop a codebook during the familiarizing phase, you will need to:

- Generate initial codes: Use your knowledge of the data to identify and label segments of the data that are related to specific themes or concepts, forming initial codes.
- Organize codes into categories: Look for similarities and patterns among the codes you have generated and group them into broader categories.
- Define each code: Write a clear definition for each code that explains what it means and how it applies to the data. It may be helpful to include examples of how the code is used.
- Create a codebook: Compile all of the codes, categories, and definitions into a document that can be used as a reference during the coding process.

The codebook should be a dynamic document that is updated as the coding process continues. New codes may be added, and existing codes may be refined or redefined based on new information in the data. A codebook is an important tool for maintaining consistency and ensuring that all team members are using the same codes and definitions.

After reading through the data several times and taking notes, it can be helpful to create an overall **summary of the content**. This involves identifying key themes, ideas, and patterns that emerge from the data. For example, after reading through the interview transcripts, you might create a summary that identifies key themes, such as challenges faced by women in accessing education and employment, experiences of discrimination and violence, and efforts to promote women's rights and empowerment in Afghanistan.

In summary, to familiarize yourself with qualitative data, you can follow the steps outlined below:

1. **Read through the data:** Start by reading through all the data you have collected. This can be transcripts, notes, or any other form of data. Read through the data multiple times to ensure that you have a good understanding of the content.
2. **Take notes:** As you read through the data, take notes of any patterns or interesting findings that you notice. These notes can be in the form of a summary or a list of themes that you identify.
3. **Organize the data:** Organize the data into manageable chunks. You can organize the data based on the research questions or the participants. This will make it easier to analyze the data later on.
4. **Develop a codebook:** A codebook is a list of codes that you will use to categorize the data. This can be developed during the familiarization stage or during the coding process. A codebook can help to ensure consistency in coding and analysis.
5. **Identify initial themes:** During the familiarization stage, you can identify initial themes that emerge from the data. These can be used to guide the analysis and help to develop research questions.

3. Code your qualitative data

The next step after familiarizing with the data is to start coding them.

1. Read and re-read your data: Start by reading and re-reading your data, such as transcripts or notes, to get a general sense of the content.
2. Take notes: As you read through your data, take notes on any interesting or relevant ideas or themes that emerge. You can use highlighters, sticky notes, or a separate notebook to capture your notes.
3. Organize your codes: Once you have a list of initial codes, organize them into broad categories or themes. This will help you to see patterns and connections in your data.
4. Refine your codes: As you continue to analyze your data, refine your codes by adding new ones, merging similar ones, or deleting irrelevant ones. Aim to create a final list of codes that are comprehensive and clear.
5. Apply the codes: Apply your final list of codes to your data by systematically going through your transcripts or notes and tagging relevant sections with the appropriate codes.
6. Review and revise: Review your coded data to ensure that you have accurately and consistently applied your codes. Revise your codes or coding scheme as needed to capture any new insights or themes that emerge.

In qualitative analysis, there is no one right way to assign codes. Some researchers prefer to assign specific codes and group data accordingly into broader codes or themes, while others prefer to apply broader codes and assign sub-codes. It is best to try both methods and determine which is most efficient for your research.

If your qualitative data consists of more than 100 interviews, consider using qualitative analysis software such as Atlas.ti., NVivo. However, if your research is on a smaller scale, you can use word processing and spreadsheet software programs such as Microsoft Word, Excel, or Google Docs and Sheets.

***Research question**: What are the key challenges CSOs face when implementing advocacy programs in provinces?*

Sample interview transcript

Date: February 28, 2023
CSO representative
Key informant interview
Interviewer: Ahmad
Interview duration: 1 hour
…
11:20 Interviewer: *What are the key challenges you face when implementing advocacy programs in provinces?*

11:21: Respondent: right now, we are facing a lot of challenges in this province when implementing our program. The challenges range from availability of resources to accessing locations.

Interviewer (probe): could you please elaborate on resource availability? What type of resource?

11:23: Respondent: By resources I mean financial and material. In each of our field visits we have to budget for a lot of cost item and as such we are not able to conduct frequent field visits. In addition to financial resources, in each field visit due to security challenges we have to conduct multiple assessments and make sure that our staff member are fully covered when at field. These additional requirements make it difficult for us to go for visits more often.

11: 27: Interviewer (probe): you also mentioned about challenges in accessing locations, please explain what do you mean by that?

11: 28: Respondent: Well by lack of access I mean the security challenges we face now and then when we want to visit a district or a village to talk to people. We are often told that you can't go there because of the armed conflict, or because of the heightened security posture. Similarly, in some areas, we are not only restricted by physical security but also because of the *sensitivity of the population to our work*, e.g. in villages are are not able to easily access survivors of violence and talk to them, or talk openly about the issues women are facing, and conduct advocacy meetings and organize public awareness sessions.

11: 30: Interviewer (probe): Thank you for explaining, is there any other challenge that you would like to mention?

11: 32: Respondent: another challenge that mostly restrict and delay our work is the poor infrastructure in provinces. In most of our field visits we have to travel very dangerous roads that are broken, or blown-up, or is entirely gravel. This not only delays our work but also lead to higher costs as we have to hire more expensive vehicles.

After reviewing your interview transcripts, as seen the text box above, you can either remove the codes that you had added before or add new ones as you go through the interviews and enrich your coding strategy. For example, take a look at the table below and cross-reference the available codes with the sample transcript above.

Codes	Sub-codes	Data
Resource availability	This theme includes sub-codes such as	"By resources, I mean financial and material. In each of our field visits, we have to budget for a lot of cost

	financial resources, material resources, and costs associated with field visits.	items, and as such, we are not able to conduct frequent field visits.
Security challenges	Sub-codes include such as armed conflict, heightened security posture, and sensitivity of the population.	"By lack of access, I mean the security challenges we face now and then when we want to visit a district or a village to talk to people. We are often told that you can't go there because of the armed conflict or the heightened security posture. Similarly, in some areas, we are not only restricted by physical security but also because of the sensitivity of the population to our work,
Poor infrastructure	Sub-codes such as broken and dangerous roads.	"Another challenge that mostly restrict and delay our work is the poor infrastructure in provinces. In most of our field visits we have to travel very dangerous roads that are broken, or blown-up, or is entirely gravel. This not only delays our work but also lead to higher costs as we have to hire more."
Field visits	Sub-codes such as limited budget, high costs, and less visits.	"In each of our field visits we have to budget for a lot of cost item and as such we are not able to conduct frequent field visits."
Survivor access	Sub-codes such as physical barriers and access to survivors of violence.	"In villages are not able to easily access survivors of violence and talk to them, or talk openly about the issues women are facing, and conduct advocacy meetings and organize public awareness sessions."
Public awareness	Sub-codes include inability to talk openly and limited/restricted sessions.	"In villages are not able to easily access survivors of violence and talk to them, or talk openly about the issues women are facing, and conduct advocacy meetings and organize public awareness sessions."

Please note that these are just a few possible codes that could be extracted from this data, and there may be others that are relevant based on the research question and the specific focus of the analysis.

4. Categorize your data and codes

After coding your data, the next step in qualitative analysis is to identify themes or patterns in the data. This involves reviewing the coded data and looking for recurring topics or ideas that emerge across different sources or cases. Once themes or patterns have been identified, they can be further analyzed and interpreted to develop a deeper understanding of the research question or topic.

There are different methods for identifying themes in qualitative data, including manual methods, such as reading and reviewing coded data to identify patterns, as well as computer-assisted methods, such as software programs that can aid in identifying and visualizing themes. The choice

of method will depend on the size and complexity of the data set, as well as the research question and goals of the study.

These themes can then be used to answer research questions or develop theoretical explanations for the phenomenon being studied. Depending on the scope and nature of the research, additional analysis may involve comparing and contrasting themes across subgroups of the data, exploring relationships between themes, or exploring deviant cases. Ultimately, the goal of qualitative analysis is to generate insights and understandings that can inform theory, policy, or practice.

Steps you can follow to identify themes and patterns in your data:

1. **Review your codes:** Review the codes you have assigned to your data and group them based on similar concepts.
2. **Look for patterns:** Once you have grouped your codes, look for patterns or relationships among the groups of codes. You may also want to look for patterns in the data that do not fit neatly into any of your coded groups.
3. **Identify overarching themes:** Based on your patterns and relationships, try to identify overarching themes that emerge from the data. Themes are broad, overarching ideas or concepts that capture the essence of your data.
4. **Refine and name your themes:** Once you have identified your themes, refine them and give them descriptive names. Make sure the names accurately reflect the content of the theme.
5. **Review and validate your themes:** Review your themes to make sure they accurately capture the content of your data. You may also want to share your themes with others to get feedback and validate your findings.

Example from the above data of how codes can be organized into themes:

Codes	Themes
Resource availability Financial resources Security challenges Staff safety Sensitivity of the population Access to survivors of violence Poor infrastructure	Resource constraints • Financial resources • Resource availability Security and safety challenges • Security challenges • Staff safety Access challenges • Sensitivity of the population • Access to survivors of violence • Poor infrastructure

By organizing codes into themes, it becomes easier to analyze and interpret the data, as well as to communicate the findings to others.

5. Interpreting your qualitative data

After organizing your data into themes, the next step in qualitative analysis is to interpret and make sense of your findings. This involves examining the relationships between themes, identifying patterns, and drawing conclusions based on your analysis.

One way to interpret your **findings is to create a narrative or story that explains the relationships between themes** and how they relate to your research questions or objectives. You may also use diagrams or visual representations to help illustrate your findings.

Ensure that your **interpretation is grounded in your data** and that you can provide evidence to support your claims. You may also want to consider the broader implications of your findings and how they can be applied to other contexts or situations.

Overall, the goal of interpreting your findings is to create a meaningful and coherent understanding of your data that can contribute to the knowledge base in your field.

The last step in analyzing your qualitative data is to identify the key findings from coded data.

Identifying key findings is necessary to meaningfully answer research questions. Even after grouping specific codes into broader codes, you might still have a long list of codes. You will have to identify what information is most meaningful to answer the research questions based on prior research, prior knowledge, and your program or logic model.

To identify key findings, you might decide to include the codes that most frequently affected facilitators, sites, or participants (note that in addition to your qualitative data, you might need to examine other data sources to corroborate that the codes affected facilitators, sites, or participants, such as your enrolment and attendance data). You might also examine codes that are particularly influential or important based on substantive reasons from prior research, your prior knowledge, and your program or logic models, regardless of the number of facilitators, sites, or participants that were affected.

Let us take the themes we identified from our example and try interpreting them:

Theme 1: Resource constraints
Theme 2: Security challenges in accessing locations
Theme 3: Infrastructure challenges

To interpret our data, we need to consider what these themes tell us about the research question or phenomenon we are exploring. We can do this by considering the following questions:

1. What are the main findings or insights that emerge from these themes?
2. How do these findings relate to our research question or phenomenon?
3. What are the implications of these findings for theory, practice, or policy?

The following provides an example of how we might answer these questions for our themes:

Findings:

The data shows that there are significant resource constraints that make it difficult for advocacy programs to operate in certain provinces. These constraints include financial and material resources and result in less frequent field visits and delays in program implementation. In addition, there are significant security challenges that restrict access to certain locations, such as districts or villages, due to armed conflict or heightened security posture. Finally, poor infrastructure in the provinces, including dangerous and broken roads, also poses significant challenges to program implementation.

Relation to the research question: Our research question is about the challenges of implementing advocacy programs in provinces. The themes we have identified are directly related to this question, as they highlight the key constraints that advocacy programs face in these contexts. The findings suggest that resource constraints, security challenges, and infrastructure challenges all pose significant barriers to effective program implementation.

Implications: The findings have important implications for both practice and policy. In terms of practice, the data suggests that advocacy programs may need to adapt their approach to work within the constraints of the local context, such as by reducing the frequency of field visits or finding alternative ways to engage with communities. In terms of policy, the findings suggest that more support may be needed for advocacy programs operating in these contexts, such as increased funding or improved security measures. Additionally, the findings highlight the need for a more nuanced understanding of the challenges facing advocacy programs in provinces, as well as the need for more research to explore potential solutions to these challenges.

As you can see, interpreting qualitative data involves careful consideration of the themes and patterns that emerge from the analysis, as well as the implications of these findings for theory, practice, and policy.

Below is an example of how qualitative data related to justice in Afghanistan and a CSO advocating for women's rights could be interpreted:

The thematic analysis of qualitative data related to a CSO advocating for women's rights in Afghanistan reveals several key themes:

Systemic challenges: The data suggests that there are systemic challenges in the justice system in Afghanistan that make it difficult for women to access justice. These challenges include patriarchal norms and values, corruption, lack of resources, and inadequate legal frameworks.

Cultural barriers: Participants in the data also mentioned cultural barriers that prevent women from accessing justice. These include the stigma associated with reporting crimes, fear of retribution, and lack of awareness of their rights.

Advocacy efforts: The data suggests that CSOs are actively working to address these systemic and cultural barriers to justice for women. CSOs are engaging in advocacy efforts to raise awareness of women's rights and push for legal reform, as well as providing legal assistance and support to women who have experienced violence or injustice.

Impact and challenges: Participants noted both the impact and challenges of these advocacy efforts. While there have been some positive changes in the justice system and increased awareness of women's rights, participants also noted ongoing challenges such as a lack of resources, limited government support, and an ongoing resistance by the male-dominated social culture within the communities.

A comparative analysis of the qualitative data could also be conducted to identify similarities and differences in the experiences and perceptions of justice for women across different regions or groups in Afghanistan. This could reveal important insights into how justice is experienced and understood by different women and communities in Afghanistan and help identify areas where targeted advocacy efforts may be needed.

A discourse analysis of the qualitative data could also be conducted to examine the language used by participants in discussions of justice for women. This could reveal underlying beliefs and attitudes towards women's rights and justice, as well as identify patterns of discourse that perpetuate or challenge patriarchal norms and values in Afghanistan.

Researchers often use a combination of these methods to interpret qualitative data, depending on the research question and the type of data collected. The choice of method depends on the researcher's goals, the nature of the data, and the theoretical framework of the research.

Here is a brief explanation of each of the methods of interpreting qualitative data that you can further explore and study.

Comparative analysis: This involves comparing data from different cases or groups to identify similarities, differences, patterns, and themes.

Discourse analysis: This involves examining the language used by participants in the data to identify underlying beliefs, attitudes, and values.

Narrative analysis: This focuses on the stories and narratives told by participants to reveal insights into their experiences, perceptions, and beliefs.

Grounded theory: This is a systematic approach to generating theories based on the data rather than applying pre-existing theories or concepts. This involves identifying concepts and patterns in the data and developing hypotheses or theories to explain them.

Content analysis: This involves analyzing the content of the data, such as text, images, or audio, to identify patterns or themes.

Thematic analysis: This is a method of identifying, analyzing, and reporting patterns within data that are relevant to the research question.

Key Points

In summary, the main takeaways from this chapter are:

Basically, there are two main approaches to data analysis:

- **linear approach:** analyze data in an orderly process.
- **cyclical approach:** flexible, revise previous steps, learn by doing, make improvements to the process.

Quantitative data analysis procedures

- Univariate analysis is used when you want to analyze one variable at a time. Analyze one variable at a time.
- Bivariate or multivariate is used when you want to analyze more than one variable at a given time.

Univariate Analysis

It examines data from each variable separately. The analysis consists of descriptive statistics and includes mainly:

- Distribution – frequency of each value
- Central tendency - the average of the values
    - Mean
    - Median
    - Mode
- Measure of variability – how spread out the values are
    - Range
    - Standard deviation
    - Variance

Bivariate analysis

In bivariate analysis, you simultaneously study the frequency and variability of two variables to see if they vary together. Multivariate analysis is the same as bivariate analysis but with more than two variables. There are usually two common ways to illustrate bivariate/multivariate analysis.

- Scatterplots
- Correlation Coefficient

Qualitative analysis

- Prepare and organize your data. This may mean transcribing interviews or typing up field notes.
- Review and explore your data. Examine the data for patterns or repeated ideas that emerge.
- Develop a data coding system. Based on your initial ideas, establish a set of codes that you can apply to categorize your data.
- Assign codes to the data. For example, in qualitative survey analysis, this may mean going through each participant's responses and tagging them with codes in a spreadsheet. As you go through your data, you can create new codes to add to your system if necessary.
- Identify recurring themes. Link codes together into cohesive, overarching themes.

Checklist

When analyzing your research data, you should feel confident about answering 'yes' to the questions below.

1	Is your quantitative data well-prepared for analysis?	☐
2	Is your qualitative data sorted and organized for analysis?	☐
3	Is the method of analysis you chose appropriate to the data you collected?	☐
4	Does the analysis method suit your research question?	☐
5	Have you conducted a univariate analysis of your data (if applicable)?	☐
6	Have you conducted a bivariate/multivariate analysis of your data (if applicable)?	☐
7	Have you developed a coding strategy for your qualitative data?	☐
8	Have you categorized/sorted your qualitative data based on the codes?	☐
9	Have you identified key findings, themes, and trends from your data?	☐
10	Is your analysis responsive to the objectives/goals of your research?	☐

Further Readings

Here are links to books, guidelines, and tutorial videos if you are interested to learn more about qualitative analysis.

For beginners:

- Qualitative Research Methods: A Data Collector's Field Guide - https://www.measureevaluation.org/resources/publications/ms-10-22
- Qualitative Data Analysis: A Methods Sourcebook - https://us.sagepub.com/en-us/nam/qualitative-data-analysis/book6169
- Qualitative Research Methods for the Social Sciences - https://www.pearson.com/us/higher-education/product/Berg-Qualitative-Research-Methods-for-the-Social-Sciences-8th-Edition/9780137151864.html

For moderate level:

- Doing Qualitative Research: A Comprehensive Guide - https://us.sagepub.com/en-us/nam/doing-qualitative-research/book235899
- Qualitative Data Analysis: An Introduction - https://us.sagepub.com/en-us/nam/qualitative-data-analysis/book226499
- Analyzing Qualitative Data - https://us.sagepub.com/en-us/nam/analyzing-qualitative-data/book238929

For advanced level:

- The Sage Handbook of Qualitative Research - https://us.sagepub.com/en-us/nam/the-sage-handbook-of-qualitative-research/book225327
- Qualitative Inquiry and Research Design: Choosing Among Five Approaches - https://us.sagepub.com/en-us/nam/qualitative-inquiry-and-research-design/book234122
- Interpretive Phenomenological Analysis: Theory, Method and Research - https://us.sagepub.com/en-us/nam/interpretive-phenomenological-analysis/book231444

Here are links to books, guidelines, and tutorial videos if you are interested to learn more about quantitative analysis.

For beginners:

- Discovering Statistics Using SPSS - This book by Andy Field provides an introduction to quantitative analysis and includes step-by-step guidance on using SPSS software. Link: https://uk.sagepub.com/en-gb/eur/discovering-statistics-using-spss/book233226
- Statistics for People Who (Think They) Hate Statistics - This book by Neil J. Salkind provides an introduction to statistical concepts and includes guidance on data analysis using Excel. Link: https://uk.sagepub.com/en-gb/eur/statistics-for-people-who-think-they-hate-statistics/book237794
- Introductory Statistics with R - This book by Peter Dalgaard provides an introduction to statistical analysis using R software. Link: https://www.springer.com/gp/book/9780387790534

For moderate level:

- Applied Statistics and the SAS Programming Language - This book by Ron Cody provides an introduction to statistical analysis using SAS software. Link: https://www.sas.com/en_us/books/reference-books/applied-statistics-and-the-sas-programming-language-third-edition.html
- Statistical Methods for the Social Sciences - This book by Alan Agresti and Barbara Finlay provides an in-depth look at statistical analysis in the social sciences. Link: https://www.pearson.com/us/higher-education/product/Agresti-Statistical-Methods-for-the-Social-Sciences-5th-Edition/9780134507105.html
- Regression Analysis: A Constructive Critique - This book by Richard Berk provides an advanced look at regression analysis and includes critiques of various methods. Link: https://www.sagepub.com/en-us/nam/regression-analysis/book223861

For advanced level:

- Multilevel Modeling Using R - This book by W. Holmes Finch provides an in-depth look at multilevel modeling using R software. Link: https://www.springer.com/gp/book/9781466515855
- Longitudinal Data Analysis - This book by Donald Hedeker and Robert D. Gibbons provides an advanced look at analyzing longitudinal data. Link: https://www.wiley.com/en-us/Longitudinal+Data+Analysis%3A+p-9781118512974
- Bayesian Data Analysis - This book by Andrew Gelman, John B. Carlin, Hal S. Stern, David B. Dunson, Aki Vehtari, and Donald B. Rubin provides an in-depth look at Bayesian data analysis. Link: https://www.crcpress.com/Bayesian-Data-Analysis-Third-Edition/Gelman-Carlin-Stern-Dunson-Vehtari-Rubin/p/book/9781439840955

Qualitative data analysis using software

- Qualitative Data Analysis with R: A Hands-On Course (https://qdr.syr.edu/education-training/short-courses/qdar): This is a free, online course that provides a comprehensive introduction to qualitative data analysis using R.
- NVivo (https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home): NVivo is a popular software tool for qualitative data analysis. The website provides a variety of resources, including tutorials and webinars, to help users learn how to use the software.
- DataCamp (https://www.datacamp.com/): DataCamp offers a variety of courses on quantitative analysis, including statistics, data visualization, and machine learning. The courses are taught through interactive online modules.
- Coursera (https://www.coursera.org/): Coursera offers a wide range of courses on quantitative analysis, taught by professors from top universities around the world. The courses are typically free to audit, or can be taken for a fee to receive a certificate.

Additional learning materials – specific to analytical software

R Studio:

- R Project for Statistical Computing: https://www.r-project.org/
- RStudio: https://www.rstudio.com/
- R Graphics Cookbook: https://r-graphics.org/

- R-Bloggers: https://www.r-bloggers.com/
- DataCamp: https://www.datacamp.com/courses/free-introduction-to-r
- edX: https://www.edx.org/learn/r-programming

Stata:

- Stata: https://www.stata.com/
- UCLA Institute for Digital Research and Education: https://stats.idre.ucla.edu/stata/
- Stata Press: https://www.stata-press.com/
- StataCorp YouTube Channel: https://www.youtube.com/user/statacorp
- Stata Journal: https://journals.sagepub.com/home/sta
- Stata Blog: https://blog.stata.com/

SPSS:

- IBM SPSS Statistics: https://www.ibm.com/analytics/spss-statistics-software
- SPSS Tutorials: https://www.spss-tutorials.com/
- SPSS Syntax Introduction: http://www.psychology.emory.edu/clinical/bliwise/Tutorials/Syntax_Intro.pdf
- SPSS Basics: http://www-personal.umich.edu/~agrogan/spss/SPSS_Basics.pdf
- IBM Analytics YouTube Channel: https://www.youtube.com/channel/UC5fPwCGvNsG0W1J8EKYcqhw

CHAPTER 16: WRITING YOUR RESEARCH REPORT

Contents

This chapter provides practical guidance on writing social research reports. It covers the overall structure of social research reports and offers detailed guidelines and sample write-ups for each section. The chapter includes the following:

- General overview of writing structure in social research.
- A sample outline for social research reports.
- Detailed guidelines and sample write-up for each section:
    - Introduction
    - Literature review
    - Findings
    - Analysis and discussion
    - Conclusion and recommendations
- A brief overview of best practices in writing.

By following the instructions, guidelines, and tips provided in this chapter, readers will be equipped with the necessary tools to write their own research report effectively. This chapter serves as a valuable resource for social researchers in the social sciences, helping them to structure their research reports and adhere to best practices in writing.

Writing Your Research Findings

Writing up research findings is an important part of any research project. Research findings refer to the results of your research, including any patterns or themes that emerge from your data analysis. The purpose of writing up research findings is to communicate these results to others in a clear and concise manner.

To write effective research findings, acquire a clear understanding of your research question and the data you have collected. This will allow you to identify key themes and patterns in your data and structure your findings in a way that is meaningful and relevant to your research question.

Effective research findings are instrumental in advancing knowledge in your field. By presenting your findings in a clear and understandable way, you can help others to build on your research and contribute to the development of new ideas and theories.

This guideline is designed to help beginners write effective research findings. By following the steps and tips outlined in this guide, you can learn how to organize and structure your research findings, present your data effectively, and write up your findings in a way that is clear and concise. Whether you are writing up your first research project or looking to improve your skills, this guide will provide you with the tools and knowledge you need to succeed.

Structure of your writing

It may be that you must write a report of around 10,000–15,000 words for your research. How might it be structured? Consider the following as a typical structure/format for your research report.

I. Introduction and Background
- Provide an overview of the research topic and its importance.
- Briefly provide related background.
- Present the research question or objective.
- Explain the scope of the research and any limitations.
- Preview the structure of the report.

II. Literature Review
- Provide a brief overview of the relevant literature and theories related to the research topic.
- Identify gaps in the literature that your research aims to address.
- Explain how your research builds on and contributes to the existing literature.

III. Methodology
- Describe the research design and methods used to collect data.
- Explain the sample selection process and any sampling techniques used.
- Discuss any ethical considerations and measures taken to ensure data confidentiality.

IV. Results
- Present the findings of your research.
- Provide clear and concise summaries of the key results and any patterns or trends observed.

- Use visuals (e.g. tables, graphs) to illustrate your findings where appropriate.

V. Discussion

- Interpret your findings and discuss their implications.
- Relate your findings back to the research question and objectives.
- Compare your findings with those of previous studies.
- Discuss any limitations of your research and suggest directions for future research.

VI. Conclusion and Recommendations

- Summarize the key findings and their implications.
- Restate the research question and objectives.
- Emphasize the contributions of your research.
- Provide actionable recommendations based on your findings.

By structuring your introduction in this way, you can provide readers with a clear understanding of your research topic, question, and methodology and guide them through the key findings and implications of your research. Remember to use clear and concise language and to provide sufficient context and background information to help readers understand the significance of your research.

1. Writing the introduction and background section

Provide an overview of the research topic and its importance: This involves introducing the research topic and providing some background information to help readers understand the significance of the topic. You may want to include information about the current state of research in the field, any controversies or debates related to the topic, or any practical or theoretical implications of the topic. The goal here is to set the stage for your research and convince readers of the importance of your study.

Present the research question or objective: This involves stating the specific research question or objective that your study aims to address. Your research question should be clear, concise, and specific enough to guide your study. You may also want to provide some context for the research question, such as why study this question or what led you to formulate this question in the first place.

Explain the scope of the research and any limitations: This involves defining the scope of your study, including any specific population or geographic area that you are studying and any specific variables or concepts that you are focusing on. You should also discuss any limitations of your study, such as sample size or time constraints, and explain how these limitations may impact the generalizability of your results.

Preview the structure of the report: This involves providing an overview of the structure of your report, including the sections that will be included and the main points that will be covered in each section. This helps readers understand the organization of your report and what to expect in each section. You may also want to highlight any particularly significant or innovative aspects of your study that readers should pay attention to.

By including these elements in your introduction, you can provide readers with a clear understanding of the significance and scope of your research and set the stage for the rest of your report.

Sample introduction and background section

Afghanistan has been the center of global attention for several decades, owing to its complex history and geopolitical significance. The country has faced numerous challenges over the years, including conflict, political instability, and economic underdevelopment. These challenges have had significant implications for the country's population, as well as for regional and global security.

This research report aims to investigate the impact of education on women's empowerment in Afghanistan. Despite significant progress in recent years, women in Afghanistan continue to face numerous obstacles to accessing education and participating fully in society. This research will help national and international stakeholders to better understand the relationship between education and women's empowerment and to identify strategies for promoting greater gender equality in Afghanistan.

The research was conducted in Kabul and several other provinces in Afghanistan and focused on women between the ages of 18 and 35. The study used a mixed-methods approach, combining qualitative interviews with key stakeholders and focus groups with women and quantitative survey data. The research also considered the broader social and cultural contexts that impact women's access to education and their ability to participate fully in society.

This report is structured as follows: Section II provides a review of the relevant literature on women's education and empowerment in Afghanistan. Section III describes the methodology used in the study, including the sample selection process, data collection methods, and analysis techniques. Section IV presents the findings of the study, including key themes and patterns that emerge from the data. Section V discusses the implications of the study for policy and practice, as well as any limitations or challenges encountered during the research process. Finally, Section VI provides a summary of the key findings and recommendations for future research and policy action.

As you can see in the example above, by introducing the research topic, background, and its importance, stating the research question or objective, explaining the scope of the research and any limitations, and previewing the structure of the report, this introduction sets the stage for the rest of the report and provides readers with a clear understanding of the significance and context of the research.

2. Writing the literature review

In this section, you should provide a comprehensive overview of the relevant literature and theories related to the research topic. This will help to establish the context for your study and to demonstrate your understanding of the existing scholarship in the field.

To do this, you should begin by summarizing the major themes and issues that have been addressed in previous research on your topic. You should then identify the key gaps or limitations in the existing literature that your research aims to address. This may include areas where previous research has been inconclusive or conflicting or where important questions have not yet been answered.

Next, you should explain how your research builds on and contributes to the existing literature. This may involve highlighting the novel aspects of your research design or methodology or explaining how your research seeks to answer questions that have not been addressed by previous studies. You should also explain the significance of your research in relation to broader theoretical or policy debates in the field.

Here are some more specific tips for each of these points:

Provide a brief overview of the relevant literature and theories related to the research topic: This should include a summary of the major themes and issues that have been addressed in previous research on your topic. You should also provide some background information on any key concepts or theoretical frameworks that will be relevant to your study.

Identify gaps in the literature that your research aims to address: This may involve highlighting areas where previous research has been inconclusive or conflicting or where important questions have not yet been answered. You should explain why these gaps are significant and how your research aims to fill them.

Explain how your research builds on and contributes to the existing literature: This may involve highlighting the novel aspects of your research design or methodology or explaining how your research seeks to answer questions that have not been addressed by previous studies. You should also explain the significance of your research in relation to broader theoretical or policy debates in the field.

The Literature Review section should provide readers with a clear sense of the existing scholarship in your research topic and the ways in which your research seeks to advance our understanding of the topic.

Sample literature review section:

Afghanistan, as a deeply patriarchal society, presents significant challenges to women's empowerment and gender equality. Previous research has highlighted various barriers that Afghan women face, including cultural norms limiting their mobility and agency, restricted access to education and healthcare, and pervasive gender-based violence. Despite these challenges, efforts to promote women's empowerment and increase their participation in political and economic life have gained momentum in recent years.

However, existing literature on women's empowerment in Afghanistan has several gaps. Most research has focused on specific aspects of empowerment, such as political or economic participation, without providing a comprehensive analysis of the multifaceted factors that

contribute to women's empowerment in the country. Additionally, there is a need for a deeper understanding of the cultural and social contexts that shape women's experiences and opportunities for empowerment in Afghanistan.

Hence, this study adopts a mixed-methods approach, utilizing surveys and qualitative interviews to comprehensively explore the factors contributing to women's empowerment in Afghanistan. By examining the intersections of gender, culture, and social context, this study provides a nuanced understanding of women's empowerment in Afghanistan, shedding light on the complex dynamics at play and informing efforts to promote gender equality and women's rights in the country.

Through a holistic and rigorous analysis, this study aims to contribute to the literature on women's empowerment in Afghanistan and provide valuable insights for policymakers, practitioners, and researchers working towards advancing gender equality in conflict-affected settings. By addressing these gaps in the literature, this study seeks to further the knowledge and understanding of women's empowerment in Afghanistan and pave the way for evidence-based policies and interventions that can lead to positive change for Afghan women and their communities.

3. Writing the methodology section

The methodology section of the report outlines the procedures, methods, and techniques used to conduct the study. It provides a clear and concise description of how the research was carried out, including the study design, sample selection, data collection, and data analysis. The methodology section should also justify the choice of methods used and explain how they are appropriate for answering the research questions or objectives.

Here are some of the key elements typically included in the methodology section:

Study Design: This section should describe the overall design of the study, including whether it is a qualitative, quantitative, or mixed-methods study. It should also explain the specific design features, such as cross-sectional or longitudinal, randomized or non-randomized, and comparative or non-comparative.

Sampling: This section should describe the sampling strategy used to select participants for the study. It should explain the population from which the sample was drawn and how the sample size was determined. It should also discuss any inclusion or exclusion criteria used and how participants were recruited for the study.

Data Collection: This section should describe the methods used to collect data, such as interviews, surveys, observation, or document analysis. It should also explain any tools or instruments used to collect data, such as questionnaires or interview guides, and how they were developed and validated.

Data Analysis: This section should describe the methods used to analyze the data collected in the study, such as statistical analysis, content analysis, or thematic analysis. It should also explain any

software used for data analysis, such as SPSS or NVivo, and how the data were managed and coded.

Ethical Considerations: This section should explain the ethical considerations that were taken into account during the study, including obtaining informed consent from participants, ensuring confidentiality and anonymity, and protecting vulnerable populations.

Overall, the methodology section should provide a clear and detailed account of the methods used in the study and justify why they were chosen. This section should also be written in a way that is transparent and replicable so that other researchers can understand and reproduce the study methods.

Example of a methodology section based on the previous example of the research topic on women's empowerment in Afghanistan:

Study Design: This study uses a mixed-methods design that combines both qualitative and quantitative approaches. The qualitative approach involves in-depth interviews with key informants, focus group discussions with community members and document analysis of relevant policy and program documents. The quantitative approach involves a survey of a representative sample of women from different regions of Afghanistan.

Sampling: The target population for this study is women in Afghanistan. A multistage random sampling technique is used to select 500 women from different regions of the country for the quantitative survey. For the qualitative component, purposive and snowball sampling techniques are used to select 20 key informants and 60 focus group participants. Inclusion criteria for the study include being a woman aged 18 or older who resides in Afghanistan.

Data Collection: The qualitative data for this study are collected through in-depth interviews with 20 key informants, focus group discussions with ten groups of women, and document analysis of relevant policy and program documents. The quantitative data are collected through a survey that includes closed-ended questions on women's empowerment, socio-demographic characteristics, and access to resources.

Data Analysis: The qualitative data are analyzed thematically using a content analysis approach, and the quantitative data are analyzed using descriptive and inferential statistics with the help of the SPSS software. The data are managed and coded using NVivo and Microsoft Excel.

Ethical Considerations: Ethical considerations were taken into account throughout the study. Informed consent was obtained from all participants, and confidentiality and anonymity were ensured. The study protocol was approved by the ethics committee (i.e., Kabul University). Special attention was given to the ethical issues of working with vulnerable populations such as women in a conflict-affected context.

4. Writing the findings and results

The findings/results section of a research report is where you present the results of your study based on the data that was collected and analyzed in the methodology section. This section should provide a clear and concise summary of your findings, organized according to the research questions or objectives.

In this section, you should aim to:

- **Present the key findings of the study in a logical and coherent manner:** This means organizing your findings in a way that is easy to follow and understand. You may want to start with a summary of the main findings, followed by a more detailed presentation of each finding.
- **Use tables, graphs, and other visuals to help illustrate your results:** Visual aids can help to make your findings more accessible and understandable. Be sure to label all visual aids clearly and explain what they represent.
- **Provide interpretations and explanations of the findings:** It is not enough to simply present your findings; you must also provide interpretations and explanations for what they mean. This involves discussing the significance of your findings in relation to the research questions or objectives.
- **Compare and contrast your findings with previous studies and relevant literature:** This allows you to contextualize your findings and show how they relate to previous research in the field. Be sure to reference all sources properly.
- **Unexpected findings:** If your study yielded any unexpected or interesting findings, be sure to highlight them and discuss their implications.
- **Discuss the implications of your findings for theory, practice, and policy:** This involves discussing the practical implications of your findings, including how they might be applied in practice and any policy implications they may have.

When writing the findings/results section, be clear and concise, and to avoid making subjective statements or drawing conclusions that are not supported by your data. It can also be helpful to use subheadings to break up the section and make it easier to navigate.

Sample of the findings section based on the previous example:

Overview of Findings: This study aimed to examine the extent of women's empowerment in Afghanistan using both qualitative and quantitative data. The study found that although progress has been made in recent years, women in Afghanistan still face significant barriers to achieving full empowerment.

Qualitative Findings: The qualitative data revealed that traditional gender norms, lack of access to education and resources, and insecurity were major barriers to women's empowerment. Despite these challenges, women were found to be actively engaged in seeking opportunities to improve their lives and communities.

Quantitative Findings: The quantitative data showed that women's empowerment varied by

region, with women in urban areas generally reporting higher levels of empowerment compared to rural areas. Additionally, women with higher levels of education and income reported higher levels of empowerment. However, the survey also revealed that many women still faced significant barriers to achieving full empowerment, such as a lack of access to economic opportunities and decision-making power in their households.

Cross-Analysis of Qualitative and Quantitative Findings: The cross-analysis of the qualitative and quantitative data showed that there were significant discrepancies between the subjective experiences reported by women in the qualitative data and the objective measures of empowerment captured in the survey data. These discrepancies highlight the importance of using both qualitative and quantitative data to fully understand the complexities of women's empowerment in Afghanistan.

Note that the example provided for the findings section is simply a narrative to help illustrate the type of analysis required. In reality, the findings should be based on the data collected during the research. If the research is quantitative, relevant data should be presented using graphs and charts, while qualitative research may require direct quotes from the data to support claims. For a mixed approach, both qualitative and quantitative data should be presented in support of each other. Overall, present the findings in a clear and concise manner, ensuring they are directly linked to the research questions or objectives outlined in the introduction section.

5. Writing your discussion section

The discussion section is where you interpret and evaluate your findings in relation to the research question or objective. In this section, you should discuss the significance of your results, explain how they contribute to the existing literature, and consider the implications of your findings for future research and practice.

To do this effectively, you need to:

Interpret the findings: In the discussion section, you will interpret and explain the findings from the results section. This involves looking at the results in the context of the research question and exploring what they mean in relation to previous research and theories. You should also examine any unexpected or contradictory findings and consider possible reasons for these.

Contribute to the field: You will also discuss the significance and contribution of your research to the broader field. This involves explaining how your findings add to existing knowledge and understanding and identifying any new insights or implications for practice or policy.

Be transparent about limitations and strengths: Be transparent about the limitations of your research, such as any constraints on the methodology, sampling, or data collection. You should also discuss the strengths of your research, such as any unique or innovative aspects of the study.

Suggest future research directions: Finally, you can suggest directions for future research based on your findings. This might include identifying areas where further research is needed or proposing new research questions or hypotheses based on your results.

Like the findings, the discussion section is a crucial part of the research report as it allows you to interpret and explain your findings and situate them in the context of the broader field. It also helps to demonstrate the significance and contribution of your research and provides a platform for identifying future research directions.

Sample discussion section on women's empowerment in Afghanistan:

The findings of this study highlight several important factors that contribute to women's empowerment in Afghanistan. The qualitative data revealed that traditional gender roles and stereotypes still persist in Afghan society, limiting women's access to education, employment, and decision-making power. However, the study also found evidence of progress, with women increasingly taking on leadership roles and challenging gender norms.

The quantitative data revealed that access to education is a key factor in promoting women's empowerment. Women with higher levels of education reported higher levels of decision-making power and greater autonomy in their daily lives. However, access to education remains limited in many parts of Afghanistan, particularly in rural areas.

The study also found that women's participation in the labor force is essential for their empowerment, as it provides economic independence and opportunities for skill-building. However, women face significant barriers to entering the formal workforce, including discriminatory hiring practices and limited opportunities in certain sectors.

The findings of this study have several implications for policy and practice. First, efforts to promote women's empowerment in Afghanistan must prioritize access to education, particularly in rural areas. Second, initiatives that promoted women's participation in the labor force, such as job training programs and targeted hiring quotas, are essential for promoting economic independence and skill-building. Finally, interventions that challenge traditional gender roles and stereotypes, such as media campaigns and community-based education programs, can help shift societal norms and promote greater gender equality.

Overall, this study provides valuable insights into the factors that contribute to women's empowerment in Afghanistan and highlights areas where further efforts are needed to promote gender equality and women's rights.

6. Writing the conclusion and recommendation section

The conclusion section serves as a comprehensive summary of the main points of the research report. When writing the conclusion, consider the following key points:

Summarize Key Findings and Implications: Begin by succinctly summarizing the key findings of the study. Provide a concise explanation of the results and their implications in the context of the research topic. Discuss how the findings contribute to the understanding of the research question and how they can be useful in addressing real-world problems.

Restate Research Question and Objectives: Restate the research question and objectives and explain how the study has contributed to answering the research question and achieving the

objectives. This helps the reader clearly understand the purpose of the study and how it has been successfully accomplished.

Highlight Importance and Contributions to Literature: Explain the significance of the research and the contributions it makes to the existing literature. Emphasize the originality of the study and the unique approach used to investigate the research question. Discuss how the findings fill gaps in the literature or provide new insights to the field.

Suggest Practical Applications and Recommendations: Conclude the section by suggesting practical applications of the findings and how they can be applied to real-world situations. Provide clear and actionable recommendations on how the findings can inform policy and practice. For example, if the study identifies effective strategies for improving public health outcomes, recommend implementing those strategies in relevant settings and provide guidance on how they can be integrated into policy and practice.

Sample conclusion and recommendation section based on the previous examples:

The findings of this study have implications for policymakers and practitioners working towards promoting women's empowerment in Afghanistan. The study has highlighted the challenges that women face in achieving full participation in society, such as limited access to education, healthcare, and economic opportunities. These findings indicate the need for targeted interventions to address these barriers and promote women's empowerment in Afghanistan.

Furthermore, the study has contributed to the existing literature on women's empowerment by identifying factors that influence empowerment in a conflict-affected context. This can inform future research efforts and provide a foundation for evidence-based policy and practice.

The study also emphasizes the need for ongoing research and monitoring in light of the changing political and social context in Afghanistan. As the country undergoes transitions, it is vital to continually assess the status of women's empowerment and adapt policies and programs accordingly.

Based on the findings, the study recommends that policymakers prioritize improving women's access to education, health care, and economic opportunities. These recommendations can serve as actionable steps toward promoting gender equality and empowering women in Afghanistan. Additionally, addressing cultural and traditional norms that perpetuate gender inequality is crucial in creating an enabling environment for women's empowerment.

By implementing evidence-based recommendations, policymakers and practitioners can work towards promoting women's empowerment in Afghanistan, leading to positive changes in the lives of women and girls. It is hoped that this study will serve as a valuable resource for informing policy decisions and actions, and contribute to the broader global discourse on women's empowerment, ultimately leading to positive changes in the status and well-being of women in Afghanistan and beyond.

Best Practices – Writing Research Reports

Research reports often suffer from ineffective writing styles that can make them difficult to read. While discussing all the problems commonly found in bad writing, such as ambiguous pronouns and misplaced modifiers, may be beyond the scope of this guide, listed below are some worth noting:

Start early: Research projects often involve significant data collection, analysis, and interpretation. By starting your project early, you give yourself ample time to conduct comprehensive research and adequately analyze your findings.

Understand the requirements: Research projects may have specific requirements such as word count, formatting, and citation style. Understanding these requirements beforehand ensures that you meet them in your write-up.

Conduct thorough research: Research projects require extensive research from various sources to gather relevant information and support your arguments. Properly citing and keeping track of your sources is crucial to maintaining academic integrity.

Organize your report: A research project write-up should be organized in a clear and logical manner, with sections dedicated to different aspects of the research. An outline helps you structure your paper and present your findings coherently.

Write clearly and concisely: Clarity and conciseness are essential in research writing to effectively communicate complex ideas. Avoiding jargon and technical language without proper definitions ensures that your paper is accessible to a wider audience.

Use proper citations: Properly citing all sources used in your research is critical to avoid plagiarism and give credit to original authors. Different citation styles may be required, so familiarize yourself with the appropriate style for your project.

Edit and proofread: Editing and proofreading your research project write-up is essential to ensure that it is error-free and meets the requirements of the assignment. This includes checking for grammar and spelling errors, as well as verifying the accuracy of your research.

Get feedback: Seeking feedback from others, such as peers or mentors, can provide valuable insights and help identify areas for improvement in your research project write-up.

Be ethical: Ethical conduct in research is fundamental, including properly citing sources, avoiding plagiarism, and adhering to ethical standards in data collection and analysis. Upholding ethical principles is crucial to maintaining academic integrity and credibility in your research project write-up.

Best Practices - Using Graphs and Tables

Using tables in research reports

Tables are commonly used in research reports to present numerical information. However, it is important to consider the purpose of the table. Are you using it to communicate the main results of the study to readers or to provide a reference document containing the detailed results of the study?

Tables that communicate the main results should be small and simple. They should contain only the essential information, and the level of precision should be no higher than needed to show important effects. Including fewer levels of each variable can make a table smaller while still conveying the necessary information.

To make tables more readable, do not include unnecessary precision. For example, reporting mean scores as 3.4 and 2.8 instead of 3.4452 and 2.7836 can make a table easier to read. Label your tables clearly with a title that clearly describes what the table shows, and use row and column headings that are easy to understand.

Tables can also be used to present non-numerical information. They can help organize and present information more clearly and concisely than written paragraphs. For example, you can use a table to summarize different types of tables in research papers, including their purpose, location, size, and precision.

Overall, consider the purpose and audience when using tables in research reports. Tables should be clear, concise, and easy to read, so readers can quickly understand the essential information they convey. Below are examples of how different types of numerical tables may be presented in research reports/papers:

Descriptive tables: These tables provide a summary of the main findings or descriptive statistics of the data, such as means, medians, standard deviations, and frequencies. Descriptive tables are used to present basic information about the data being analyzed.

Variable	Mean	Median	Standard Deviation
Age	35.2	38	6.5
Income	500 AFN	450 AFN	100 AFN
Education	13.8	14	2.3

Comparative Tables: These tables are used to compare data across different groups or categories. Comparative tables can show data in rows or columns, with the data for each group or category presented side by side for easy comparison.

Category	Group 1	Group 2	Group 3
Mean Score	85	78	92
Median Score	88	75	95
Standard deviation (SD)	7	9	5

Time-Series Tables: These tables present data collected over time, typically in chronological order. Time-series tables can be used to show trends, patterns, or changes in the data over time and may include data from multiple time points.

Year	Sales (in millions)
2015	10 AFN
2016	12 AFN
2017	15 AFN
2018	18 AFN

Cross-tabulation Tables: These tables are used to present data in a two-dimensional format, showing the relationship between two or more variables. Cross-tabulation tables are often used in statistical analysis to examine the association or relationship between variables.

Gender	Age Group	Frequency
Male	18-24	100
Male	25-34	250
Male	35-44	200
Female	18-24	150
Female	25-34	300
Female	35-44	100

Summary Tables: These tables provide a concise summary of the main findings or results of the research study. Summary tables typically include key statistics or results and are often used to highlight the main findings of the research.

Findings	Results
Main Effect	Significant
Interaction	Not Significant
Conclusion	Supported Hypothesis

Supplementary Tables: These tables may include additional or supplemental data that is not included in the main text of the research report or paper. Supplementary tables can provide additional details or information that supports the main findings of the research.

Variable	Group 1	Group 2	Group 3
A	10	15	20
B	5	8	12
C	7	11	18

These are just examples of how different types of numerical tables may be presented in research reports/papers, and the actual format and content of the tables may vary depending on the specific research study and requirements of the publication or report. Remember to follow the formatting guidelines and conventions of the research field or publication when presenting numerical tables in research reports/papers.

Using graphs in research reports

Graphs are a powerful tool to present comparisons or relationships between numbers in research writing. However, it is crucial to choose the appropriate type of graph for the information you want to convey. To ensure that your graphs are effective in communicating the desired message, consider the following points:

- Label each graph clearly: give each graph a title that clearly describes what it shows. Label the axes with terms that can be easily understood by any reader, even if they have not read the entire report. Make sure to indicate the units of measurement for the numbers on each axis, either in the title or axis label.
- Avoid overcrowding graphs that include too much information that will be difficult to read. Determine how much information is necessary on a case-by-case basis. For example, a line graph with multiple lines that cross each other may be hard to read, while a bar graph with too many groups can be confusing.
- Ensure readability: the graphs must be large enough to be read easily. Small graphs with illegible labels will not show the intended relationships effectively, defeating their purpose.
- Keep it simple: avoid over-decorating the graphs with unnecessary effects like shadowing, 3D effects, etc. These add-ons may even make it harder to interpret the information. Use shading only where It is meaningful like to indicate areas where no data is possible.

By keeping these guidelines in mind, your graphs will be more effective at communicating the desired message in your research writing. Please see Annex 6 of this guideline for more information about graphs/charts and their usage.

Key Points

In summary, the main takeaways from this chapter are:

Before starting the narration of your research report, cross-check the following questions:

- What is the purpose of the report?
- Who is the audience for the report?
- What is the word limit?
- What is the topic of the report?
- What is the expected format of the report?

The next step is to draw a rough sketch (outline) of your report and start with the following sections:

- **Introduction -** section may include a brief review of the literature already available on the topic so that you are able to 'place' your research in the field. Some brief details of your methods and an outline of the structure of the report.
- **Literature Review** - If asked to do a separate literature review, you must carefully structure your findings. It may be useful to do a chronological format where you discuss from the earliest to the latest research, placing your research appropriately in the chronology.
- **Methodology** - Here, you clearly outline what methodology you used in your research, i.e., what you did and how you did it. It must be clearly written so that it would be easy for another researcher to duplicate your research if they wished to.
- **Findings / Results -**This is where you indicate what you found in your research. You give the results of your research, the analysis, and the associated interpretation within the larger context. It will relate back to your literature review and your introductory research topic.
- **Discussion:** In this section, you cross-check different findings, interpret potential correlations, and interpret their meaning in broader context and implications.
- **Conclusion** - This is a summary of the most significant results/findings. Sometimes you could indicate some areas where your research has limits or where further research would be useful. This section also includes suggestions for what needs to be done as a result of your findings. Recommendations are usually listed in order of priority.
- **References or Bibliography** - This includes all references used in your report or referred to for background information. This must be done using the referencing convention specified by your organization.
- **Annexes/appendices** - These should add extra information to the report. If you include appendices, they must be referred to in the body of the report and must have a clear purpose for being included. Each appendix must be named and numbered.

Checklist

When working on the write-up of your research, you should feel confident about the following questions.

1	I have drafted an outline of my research report and organized key topics logically	☐
2	The introduction section is engaging, persuasive, and provides necessary information.	☐
3	I have presented the research question in clear and straightforward language.	☐
4	The research method section is clear and includes key sampling concepts used in the research, i.e., population frame, data collection techniques, etc.	☐
5	The quantitative data analyzed and prepared to be used in the narrative report	☐
6	The qualitative data is organized and sorted, ready to be used in the narrative report	☐
7	The findings/results section includes a combination of quantitative and qualitative analysis, interpretation, and related contextual information.	☐
8	The conclusion section provides a summary of the key findings and concludes research questions vs. the discussed topics.	☐
9	The recommendation section provides clear recommendations for future studies (and if project related, recommends areas of improvement for future programming).	☐
10	All relevant references are provided in a concise manner.	☐
11	Other relevant information is provided in the annex/appendices sections.	

Further Readings

Here are some credible open-source references for writing research reports.

Purdue Online Writing Lab (OWL): This is a comprehensive online writing lab that offers resources on various aspects of writing, including research and citation. It covers multiple citation styles, including APA, MLA, and Chicago.
Link: https://owl.purdue.edu/owl/purdue_owl.html

Harvard College Writing Center: This resource offers guidance on writing research papers, from planning and organizing to revising and editing. It also includes tips on effective research and citation. Link: https://writingcenter.fas.harvard.edu/pages/resources

Research and Documentation Online: This resource provides a step-by-step guide to the research and writing process, including finding sources, evaluating information, and citing sources in APA and MLA styles. Link: https://www.dianahacker.com/research-and-documentation/

Writing Commons: This resource provides a wide range of articles and guides on various aspects of academic writing, including research papers, essays, and reports. Link: https://writingcommons.org/

The Online Writing Lab (OWL) at Excelsior College: This resource provides guidance on writing research papers, from topic selection to final editing. It includes information on APA, MLA, and Chicago citation styles. Link: https://owl.excelsior.edu/

Links to Afghanistan-related social research publications.

AREU: https://areu.org.af/publications/
Samuelhall: https://www.samuelhall.org/publications

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ANNEX 1 – SAMPLE INFORMED CONSENT LETTER/FORM

Informed Consent Letter/Form

Research topic or title:

Lead researcher:

Purpose of your research/study: I am a research officer at a CSO [insert name]. I am conducting research as part of the women empowerment project funded by [insert name of the funding agency]. I would like to know if you would be willing to participate in research [insert scope of your research].

Procedures: You will be asked to participate in an interview [modify this based on your data collection approach] that will ask you about [add research questions].

I will record your voice to make sure I have all the details. Do you agree with me recording your voice? _____

Please note if your research does not require recording the respondent's voice, please remove it from this letter.

Confidentiality: All the information you provide will be strictly confidential, and your name will not appear on the questionnaire. Instead, your questionnaire will contain an identification number that is known only by the research team in this study.

Participation and compensation: Your participation is voluntary. You may refuse to participate or may discontinue your participation at any time during the online survey.

Please note you should clearly state to the respondents if you are providing (or not) any type of compensation.

Agreement notes:

If you agree to participate in our study, I would appreciate your signing your name and date to this form.

If the respondent could not sign, take their fingerprint.

I have read the information provided above, and I voluntarily agree to participate in this research.

Participant name: _____

Date: _____

ANNEX 2 - SAMPLE PERMISSION/AUTHORIZATION LETTER

Permission/Authorization Letter

Letter/reference #: [specify]

Date: mm/dd/yy

To: The Ministry of [insert the official name of the relevant ministry/agency], Islamic Emirate of Afghanistan (IEA) – the de facto authorities

To whom it may concern:

[inset appropriate greetings here]

This is to inform you that [insert name of the researcher, position, or the relevant CSO] would like to conduct [insert your research title/topic] in [insert names of provinces, applicable] of Afghanistan.

Please note: if your research is funded by a CSO/NGO or any other agency, add related details [you have been commissioned by [xx] agency/CSO/NGO, under contract #].

[add details about why your research is important and how it can help policymakers and other social actors].
With this letter, [the researcher/agency] seeks permission/authorization/support from the [relevant DFA ministry/authority] to conduct the research.

Please accept our earnest gratitude and thanks in advance for your help.

Note: For more information, please contact us:

[add relevant researchers' contact information]

Sincerely,

[insert relevant persons/agency's signature/stamp]

ANNEX 3 – RESEARCH PREPARATION RISK ASSESSMENT

Research phases	Questions
Topic and scope	• Are the research questions linked to local conflict issues? • Is the research question politically relevant? • Is the research questions sensitive in the local context?
Methodology	• Is the selected methodology culturally appropriate? • Is the selected methodology politically appropriate? • Is the selected methodology feasible in the given context?
Planning	• How flexible are the research plans? • Is it possible to adapt research plans to a change in context? (if a research area is no longer accessible due to insecurity) • Can other research areas be selected?
Funding agency and partner	• What is the role/position of the research funding agency/partner (i.e., donor) vis a vis Afghanistan? • How do people perceive the donor agency/partner? Negative or positive? • Is the donor agency/partner involved in the conflict? • Are you associated with any NGOs, CSOs, DFA, or others? How does this affect research relations on the ground?
Research Participants	• What are the participant's selection criteria? • What is the level of access to the research participants? • Can the research team interview males and females? Or only males? • What is the role and position of the research population in the conflict? • Are the research participants involved in or affected by the conflict? • Could the selection of respondents be perceived as politically, culturally, or socially biased?
Research area – geographical focus	• What are the criteria for selecting geographical areas? Is "conflict" a criterion in this selection? • If so, why? And if not, why?
Communication	• How is the purpose of the research communicated to the local authorities, community leaders, religious leaders, etc.? • How is the purpose of the research communicated to the research participants? • Who else should know about the research purpose? • How are expectations managed? • How will the team communicate internally? • How will the confidentiality of the data be ensured? Are systems in place?
Team composition	• What are the staff recruitment criteria? Are there enough female researchers on the team? Do their legal companions accompany them? • How will the research participants perceive/react to the research team? • How will the local authorities perceive/react to the selected research team? • Is the research team biased? Are they directly or indirectly involved in local conflicts, tensions, or politics? • Who is responsible for the security of the research team?
Safety and Security	• Who is responsible for the security of the researcher? • Who is responsible for the security of the research participants? • What are the safety and security measures for this research? Is there a set

	mechanism for it? • Are the field's research team members trained on security and safety measures? • What are the measures for data security? • Are the research team members trained on data security measures? • Are the security measures budgeted and applicable? • How could research participants potentially be harmed if the data collected end up in the wrong hands? How can the research team help?

ANNEX 4 – DATA COLLECTION TOOLS SAMPLE MATRIX

Research Question: "What are the challenges faced by Afghan women in accessing education?"
Indicators:

- Access to formal education (yes, no)
- Barriers to education (security concerns, cultural norms, lack of resources, lack of transportation)
- Attitudes toward women's education (positive, negative)

Matrix:

Indicator/Question	**Question 1: Access to formal education**	**Question 2: Barriers to education**	**Question 3: Attitudes toward women's education**
Indicator 1 – Access to formal education			
Have you ever attended formal school? (Yes, No)			
Are you able to attend school regularly? (Yes, No)			
If not, why not? (Security concerns, Cultural norms, Lack of resources, Lack of transportation)			
Indicator 2 – barriers to education			
If yes, what level of education have you completed? (Primary, Secondary, Tertiary)			
What are the main barriers you face in accessing education? (Security concerns, Cultural norms, Lack of resources, Lack of transportation)			
Indicator 3 – attitude toward women's education			
What is your perception of women's education? (Important, Unimportant)			
Do you believe women should have equal access to education as men? (Yes, No)			
Are you in favor of women's education in your community? (Yes, No)			

Matrix narrative: In this example, the matrix is designed to logically arrange the challenges faced by Afghan women in accessing education.

For Indicator 1, questions related to the level of education completed by respondents are added.
For Indicator 2, questions related to the ability to attend school regularly and the reasons for not attending are included.
For Indicator 3, questions related to respondents' perception of women's education, belief in equal access to education, and community support for women's education are added.

These additional questions help to gather more detailed and nuanced information related to the research question, providing a more comprehensive understanding of the challenges faced by Afghan women in accessing education.

ANNEX 5 - SAMPLE RESEARCH TRAINING AGENDA AND STRUCTURE

Objectives of the research training:

- Introduction of the research scope, objectives, and goals
- Discussion/comprehension of the data collection tools
- Practice/role-play interviews
- Pilot test
- Reflection and learning
- Administrative and financial issues
- Deployment

Training - Day 1

Time	Session Topic	Content
8:00 - 8:30	Reception	- Reception of the participants
8:30 – 9:00	Pre-test	- Evaluate the basic knowledge of trainees in conducting surveys/verifications
9:00 - 9:30	Introduction	- Ask participants to introduce themselves briefly and tell the group about their background and experience in administering surveys
9:30-10:00	Presentation of the training agenda	- Overview of the Agenda and training structure - Ground rules
10:00 – 10:15 Tea Break		
10:15 - 11:00	Project scope, goals, and objectives	- Introduction of the research topic, question, and context - What is research? - What is the purpose of this research? - What is the end goal?
11:00-12:00	Introduction research – brief theory	- How is research performed? - Explain types of interviews/surveys etc.
12:00 – 01:00 Lunch and Prayer		
1:00 – 2:00	Sampling size and geographical locations	- Discuss the sample size - Explain the demographical traits of the areas covered in this research
2:00 - 3:00	Discuss data collection tools	- Introducing the questionnaire and its parts - Self-introduction and introduction of the survey - Getting respondents to consent

3:00 – 3:30	Technical terms/words/phrases	- Familiarize participants with the technical terms, words, and phrases used in the tools - Distribute the glossary of terms
3:30 – 4:30	Day 1 wrap up	- Review the discussed content of the day - Conclude/lessons learned

Training - Day 2

Time	**Session Topic**	**Content**
8:00-8:30	Recap of Day 1	
8:30-9:30	Explanation of technical words/terms	- Re-visit the technical terms and Q&A
9:30 - 10:30	How to use the data collection tools – if digital data collection is planned	- Practice doing surveys/interviews with phones/tablets - Introduce the platform (i.e., KoBo, ODK) - How to record answers - How to submit files

10:30 – 10:45 Tea Break

10:15-12:00	Roleplay	- Practice data collection - Mock Interviews – groups/pairs

12:00 to 1:00 Lunch and Prayer

1:00-2:00	Lessons learned/reflection on the role play	- Points to be noted - Areas that the team needs to improve - Discuss potential changes
2:00 – 3:00	Roleplay	- Practice data collection - Mock interviews in groups/pairs
3:00 – 4:00	Discuss ethical considerations	- Discuss taking informed consent - Making sure of participant's safety and security - Managing sensitive data
4:00 – 4:30	Day 2 wrap-up and Q&A	- Review major themes - Respond to questions

Training – Day 3

Time	**Session Topic**	**Content**
8:00 – 8:30	Recap of Day 2	
8:30 – 12:00	Pilot your tools -	- Gather participants and visit the pilot area - Conduct the interviews/surveys

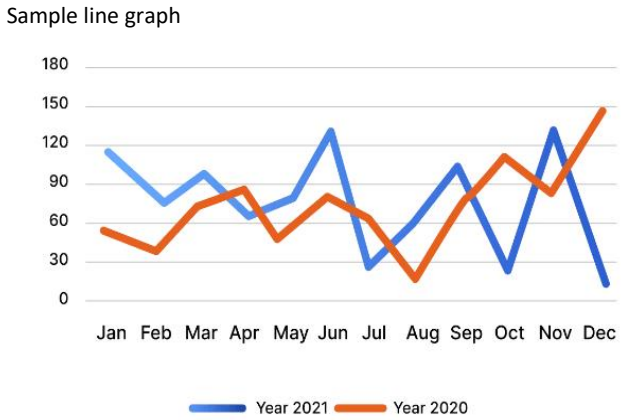
12:00 - 1:00 Lunch and Prayer

1:00 – 2:00	Reflection on the Pilot and lessons learned	- Discuss how the pilot was conducted - Highlight areas that the team performed well - Highlight areas that the team needs improvement
2:00 – 3:00	Discuss quality assurance measures/indicators	- Talk about how data will be assessed and quality assurance indicators for the survey/interview - What are the areas in that researchers will receive rejection
3:00 – 4:00	Administration	- Discuss travel arrangements - Discuss financials
4:00 – 4:30	Wrap-up and deployment	- Highlight key research points - Thank the participants for coming over and participating in the research program - Deploy the field researchers to their respective provinces

ANNEX 6 - COMMONLY USED GRAPHS IN SOCIAL RESEARCH

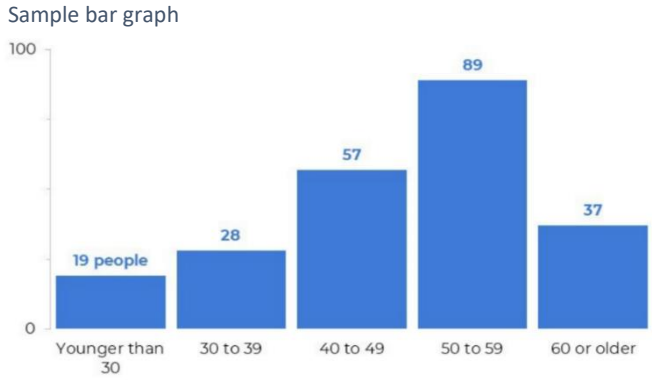
A line graph

A line graph (see figure below) shows one variable as a function of another. It is particularly useful for showing trends or changes over time and also for showing how one variable (the y-variable) changes in response to changes in another variable (the x-variable). A line graph is appropriate when the x-variable is a measurement or a quantity. A line graph can also be appropriate when the levels of the x-variable are categories if there is a meaningful ordering of those categories (for example, levels of education). If there is no meaningful ordering of the categories, it is better to use a different type of graph.



A bar chart or bar graph

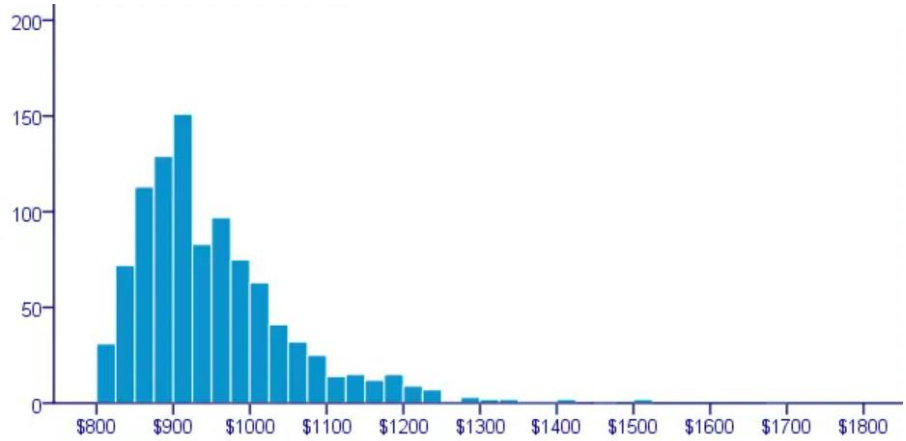
A bar graph is appropriate for comparing quantities (scores, averages, percentages, etc.) computed for discrete groups or categories, whether there is a logical ordering of the categories or not.



Histogram

A histogram is simply a vertical bar graph of a distribution of some variable, and it is usually the clearest way to show the distribution of a single variable. However, putting two or more histograms on the same graph is not a good idea; such a graph is usually unreadable. It is better to compare two distributions using horizontal bar graphs extending left and right from a vertical center line. Demographers use this type of graph to show the age distribution of a population, separately for males and females; they call it a "population pyramid."

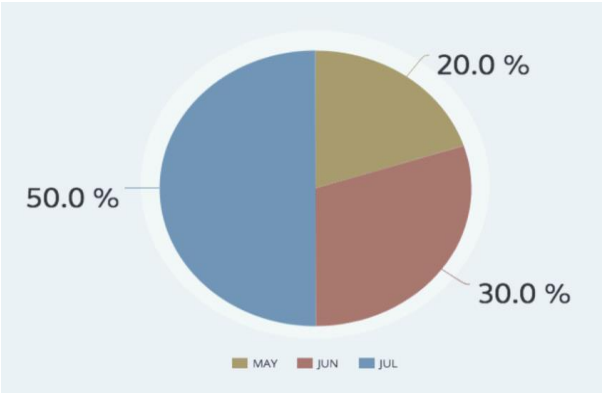
Sample of histogram



A pie chart or circle graph

A circle graph, sometimes called a "pie chart," is appropriate for showing percentages that must sum to 100%. A circle graph is easier to read if the number of categories (represented by sectors of the circle) is small. A circle graph is especially appropriate if the categories have no logical ordering. (If the categories have a logical ordering, it is better to use a stacked bar graph, described below.) Two circle graphs side by side can be an effective way to show differences between groups in their percentages for the same categories. If the groups differ in size, you can communicate that difference by making the area of each circle proportional to the size of the group.

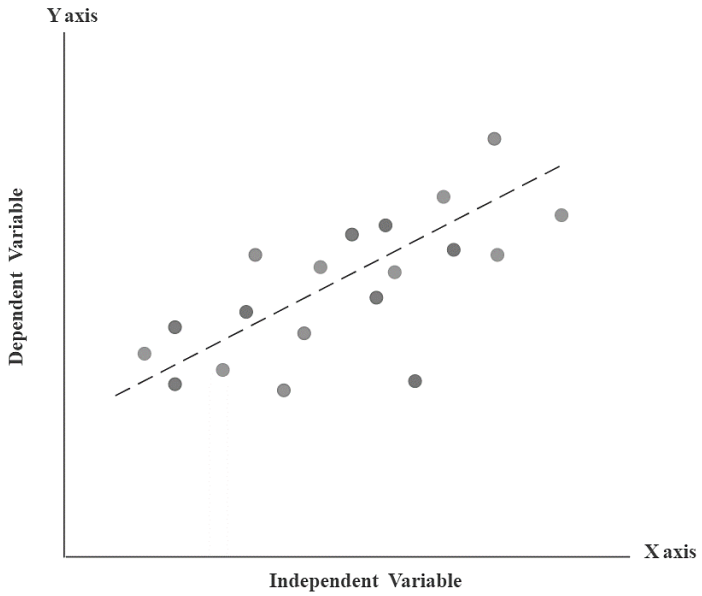
Sample pie chart



Scatter plot

A scatterplot, sometimes called an "XY plot," is a good way to show the joint distribution of two variables when each variable has many possible values. Each data point represents a single observation. The position of the point shows the values of the two variables. Scatterplots work well for both small and large numbers of observations (unless there are so many observations that the reader cannot see the individual data points).

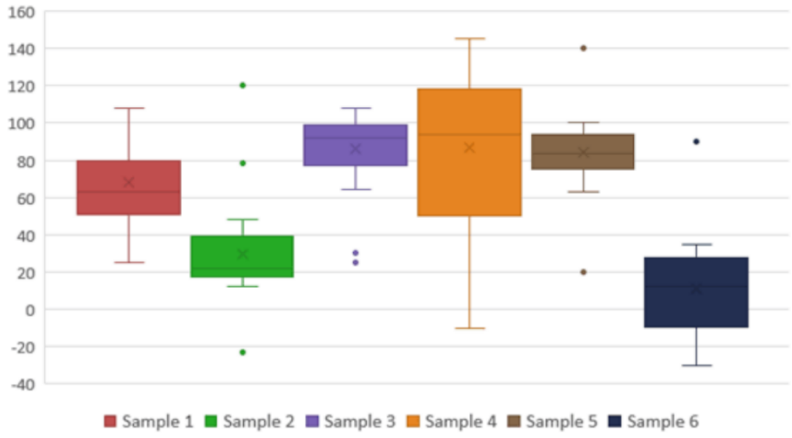
Sample scatter plot



Box and whisker plot

A box-and-whisker plot is a good way to compare two or more distributions when the number of observations in each distribution is too large to show individual data points. Again, the distributions to be compared could be distributions of the same variable in different groups, or they could be distributions of different but comparable variables in the same group. Each distribution is represented by a rectangular box extending from the 25th percentile to the 75th percentile, with a line crossing the box at the 50th percentile. The "whiskers" are lines extending from the ends of the box to the 10th and 90th percentiles. The height of the box shows the overall level of the scores. The length of the box and the whiskers show the variation within the distribution.

Sample box and whisker plot



ANNEX 7 - GLOSSARY OF RESEARCH TERMS

Terms	Definition
Analysis	An investigation of the component parts of a whole and their relations in making up the whole noun: the abstract separation of a whole into its constituent parts in order to study the parts and their relations
Code	A category deemed important by the individual(s) conducting the analysis. It is a method used to label important pieces of information that are contained in the narrative
Correlation	A statistical relation between two or more variables such that systematic changes in the value of one variable are accompanied by systematic changes in the other. In addition, it shows statistics representing how closely two variables co-vary; it can vary from -1 (perfect negative correlation) through 0 (no correlation) to +1 (perfect positive correlation) (Example: "What is the correlation between those two variables?")
Data	A collection of facts from which conclusions may be drawn (For example, qualitative interviews and quantitative surveys)
Estimation	An approximate calculation of quantity or degree or worth of something.
Interpretation	An explanation of something that is not immediately obvious (Example: "The edict was subject to many interpretations"), in other terms, an explanation that results from interpreting something (Example: "The report included his interpretation of the forensic evidence")
Interview	The questioning of a person (or a conversation in which information is elicited); is often conducted by journalists or a researcher. It also refers to discussing formally with (somebody) for the purpose of an evaluation (Example: "We interviewed the job candidates")
Mean	An average of 'n' numbers is computed by adding some function of the numbers and dividing by some function of 'n'.
Median	The value below which 50% of the cases fall adjective: relating to or situated in or extending toward the middle.
Mode	The most frequent value of a random variable.
Percentage	A proportion multiplied by 100.
Qualitative	Involving distinctions based on qualities or involving comparisons based on qualities.
Quantitative	Expressible as a quantity relating to or susceptible to measurement / relating to the measurement of quantity.
Questionnaire / Data Collection Tool	A form containing a set of questions; is submitted to people to gain statistical information.
Standard Deviation	the square root of the variance

Statistics	A branch of applied mathematics concerned with the collection and interpretation of quantitative data and the use of probability theory to estimate population parameters
Descriptive Statistics	A branch of statistics that denotes any of the many techniques used to summarize a set of data. In a sense, we are using the data on set members to describe the set.
Inferential Statistics	Comprises the use of statistics to make inferences concerning some unknown aspect (usually a parameter) of a population.
Survey	A short descriptive summary (of events) for statistical purposes
Themes	A unifying idea is a recurrent element within an interview or a narrative leading to a set of patterns. There is no agreed-upon methodology in narrative analysis to derive themes from patterns. One practice, however, is to use an analysis team, with "themes" being whatever sets of "like" information the team reaches a consensus on based on a discussion of transcripts and analysis of patterns.
Trend	A general direction in which something tends to move – i.e., the trend of the political situation is in a negative direction.
Validity	The quality of having legal force or effectiveness, or the quality of being logically valid
Variance	The second moment around the mean; is the expected value of the square of the deviations of a random variable from its mean value. In other words, the quality of being subject to variation.